



OWATONNA TOOL CO.

OWATONNA, MINNESOTA

U. S. A.

CATALOG **47** NUMBER



F O R E W O R D

ALMOST A QUARTER OF A CENTURY of experience and progress in the building of quality maintenance tools has gone into the research, design and development of the OTC tools shown in this new catalogue. Through these years it has been our aim and ambition to build the finest tools on the market. How well we have attained that goal is reflected in the thousands of satisfied customers who insist on using "nothing but OTC", and the thousands of new customers who are joining the ranks of OTC users every year.

Honesty of design and quality of material and workmanship is a standard we have adhered to over the years.

OTC is also well known for its excellence and variety of special tools for the automotive, tractor, aircraft and industrial fields. In this new catalogue a number of these special tools have made their first appearance and will be warmly welcomed by the trade.

Special emphasis is placed on the OTC PULLING SYSTEM which is the most complete, the most universal and the most versatile set of tools ever designed for the removal of bearings, gears, wheels, pulleys, sheaves, bushings, shafts and other close-fitting parts. Ten major tractor and eight major bearing manufacturers have approved and are recommending OTC Pullers to their dealers and users. This unqualified endorsement is your best guarantee of quality, long life and satisfaction.

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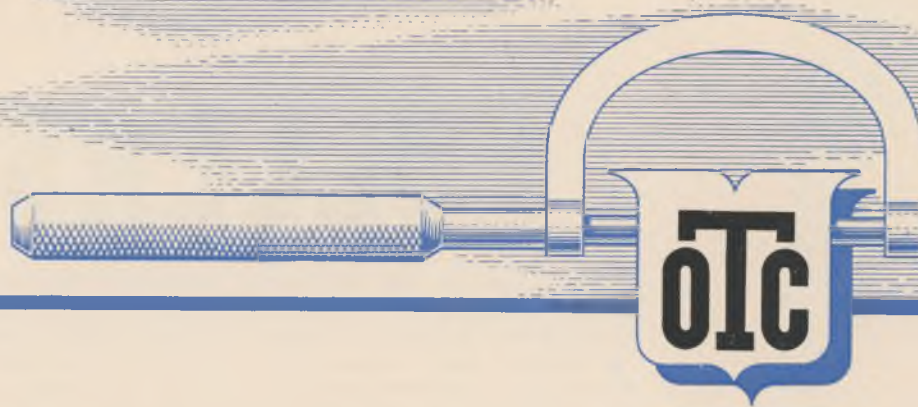
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G U A R A N T E E

OTC Tools are guaranteed against defects in materials and workmanship. Tools found not defective will not be replaced. Any tool that has been abused, worn out, heated, ground or otherwise altered, or used for a purpose other than that for which it was intended will not be replaced. Final determination of defects must be made at the factory.

Notice: Government regulations controlling finishes, materials, sizes and types, and shortages of materials may make substitutions necessary without notice or regard to catalogue descriptions. We also reserve the right to make changes in design or construction without obligation to incorporate such changes in tools previously sold.

Inspection

All OTC Tools are thoroughly inspected before leaving our plant and each customer is assured of receiving a new tool of equal quality and design as that furnished to everyone else. There are no "seconds" and every OTC tool must meet the rigid standards set by the Owatonna Tool Company.

Service

We offer service on OTC tools at any time during their life at a cost to the user covering only the material and labor necessary to put them in first class condition. Parts can be purchased to replace those lost or worn out. Consult the parts price list in the rear of this catalogue for identification and prices on parts.



FIRE POLICY

Every year hundreds of maintenance shops are destroyed by fire and very often the tools in these shops are not insured. We recognize that the loss of the tools of his trade presents a very serious loss to the average mechanic.

In the past we have reclaimed these tools and put them in good serviceable condition for our customer without charge. This has now become an established policy with OTC and we will perform this service on all OTC tools regardless of when they were purchased.

The OTC tools you now have are covered under this policy and we agree to refinish and re-heat treat all OTC tools that have been damaged by fire and that can be reclaimed. Such tools will be reclaimed at a cost to our customer of only the transportation both ways and the cost of such parts which may be missing or unserviceable.

OWATONNA TOOL CO.
OWATONNA, MINNESOTA



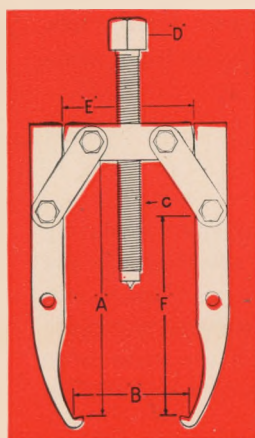
Grip-O-Matic PULLERS

These pullers are the ultimate in design and quality. Their patented gripping feature, the thin jaws and their great strength makes them the most universal and most versatile pullers on the market today. Each size is automatically adjustable to a wide range of applications made easy by the linkage arrangement. They are safe and will not slip off the work because **THE TOUGHER THE PULL THE HARDER THEY GRIP.** The Power-Pitch threads on the forcing screw provides 32% more power than the conventional V-type thread.

A wide range of sizes is provided to fit every possible use from ignition and electrical work to heavy maintenance jobs in large industrial plants. There is no job too large or too small for an OTC Grip-o-matic Puller.

These tools are approved and recommended by Timken, Hyatt, New Departure, M-R-C, SKF, Federal and other leading bearing manufacturing companies for removing their bearings.

SPECIFICATIONS



OTC Grip-o-matic Puller No.	"A" Max. Reach	"B" Max. Spread	"C" Length and Diameter of Forcing Screw	"D" Size of Forcing Screw Head	"E" Length of Head Nut	"F" Reach	Approx. Capacity in Tons	Weight Lbs.
*1001	3 1/4"	0" to 6"	9/16" x 6"	5/8" Sq.	3"	1 3/4"	5	1 1/2
1001-L	5 1/2"	0" to 8"	9/16" x 6"	5/8" Sq.	3"	4"	5	2
*1002	5 1/2"	0" to 8"	11/16" x 9"	3/4" Sq.	4 5/16"	3 3/4"	9	3 1/2
1002-L	8 1/2"	0" to 10"	11/16" x 9"	3/4" Sq.	4 5/16"	7 1/4"	9	5
1003	10"	0" to 12"	13/16" x 12"	7/8" Sq.	6 5/16"	7"	15	8
1003-L	15"	0" to 14"	13/16" x 12"	7/8" Sq.	6 5/16"	12 3/8"	15	9 1/2
1003 1/2	14"	0" to 14"	1" x 13 1/2"	1 1/4" Hex.	9"	10 1/4"	22	23
1003 1/2-L	18"	0" to 16"	1" x 13 1/2"	1 1/4" Hex.	9"	14 5/8"	22	27
1004	15 1/2"	0" to 16"	1 1/4" x 15"	1 3/8" Hex.	11"	9 7/8"	28	34
1004-L	22"	0" to 20"	1 1/4" x 15"	1 3/8" Hex.	11"	16"	28	40
1005	21 1/2"	0" to 20"	1 1/2" x 15"	1 7/8" Hex.	11"	15"	35	56
1005-L	28"	0" to 26"	1 1/2" x 15"	1 7/8" Hex.	11"	21"	35	65
1006	24"	0" to 30"	2" x 18"	2 3/8" Hex.	16"	17"	50	105
1006-L	36"	0" to 36"	2" x 18"	2 3/8" Hex.	16"	29"	50	125

*With double-end reversible arms.

REVERSIBLE ARM

Grip-O-Matic PULLER 1001

Especially practical for removing generator and magneto gears and bearings but equally good for small timing gears, pinions, bearings and other parts that are usually difficult to remove. This puller has wide, thin hooks and narrow, thick hooks on opposite ends of the puller arms which adapts it to a wide range and variety of work. See table above for specifications.

No. 1001—Grip-o-matic Puller.

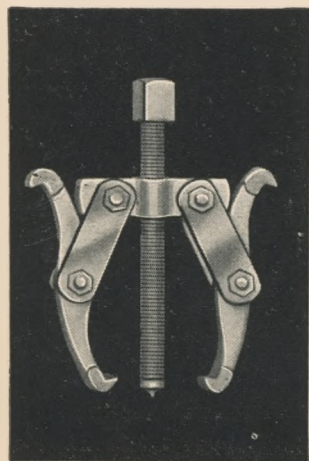
Wt. 1 3/4 lbs.

REVERSIBLE ARM

Grip-O-Matic PULLER 1002

This puller is extremely popular in all types of maintenance work. It has thin hooks on one end and slotted hooks on the opposite end of the arms. The slotted hooks can be used to hook onto cap screws where gears are tapped for this purpose. Its range of 0" to 8" adapts it to a wide variety and range of work on automobiles, aircraft, refrigeration, etc. Single-end arms are also available for this tool.

No. 1002—Grip-o-matic Puller. Wt. 4 lbs.

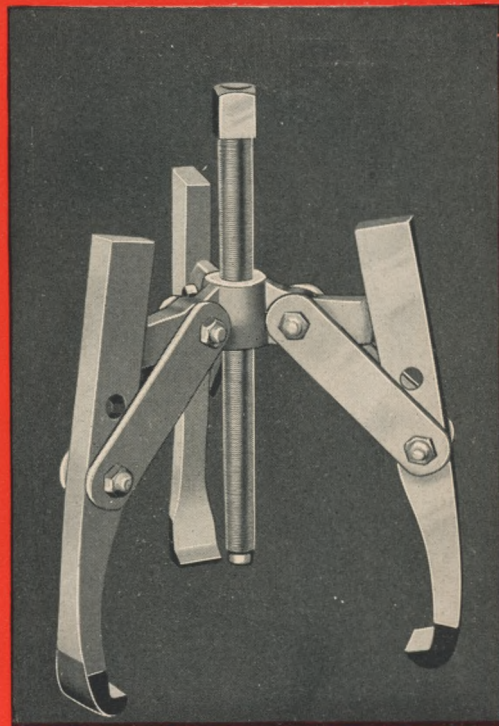




THREE-ARM *Grip-O-Matic* PULLERS

OTC Triple-Grip, non-slip gear pullers are built in the same sizes and capacities as the two arm pullers illustrated and described on the opposite page and are available in both long and short arms. They provide the means and the power to pull gears, flywheels, pulleys and other parts where it is necessary to apply the arms between spokes and where no other puller can be applied. It permits a 3-point grip which on many operations is necessary.

Customers already having the 2-arm Pullers need only purchase the 3-way forged head and one arm assembly to obtain a 3-arm Puller. Customers who want both types need only purchase a 3-arm Puller and the 2-way head of the corresponding size to obtain the advantages of both types. Arms, forcing screws, straps and cap screws are interchangeable.

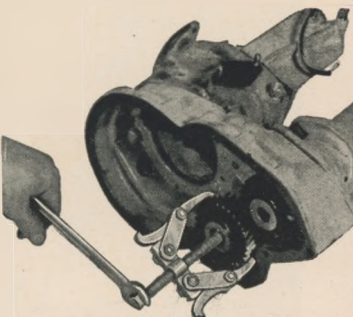


3-Arm Grip-o- matic No.	"A" Max. Reach	"B" Max. Spread of Arms	"C" Length and Dia. of Screw	"D" Size of Screw Head	Cap. in Tons	Wt. Lbs.	3-Arm Grip-o- matic No.	"A" Max. Reach	"B" Max. Spread of Arms	"C" Length and Dia. of Screw	"D" Size of Screw Head	Cap. in Tons	Wt. Lbs.
*1011	3 1/4"	0" to 6"	9/16" x 6"	5/8" sq.	6	2	1013 1/2-L	18"	0" to 16"	1" x 13 1/2"	1 1/4" hex.	22	37
1011-L	5 1/2"	0" to 8"	9/16" x 6"	5/8" sq.	6	2 1/2	1014	15 1/2"	0" to 16"	1 1/4" x 15"	1 3/8" hex.	28	47 1/2
*1012	5 1/2"	0" to 8"	11/16" x 9"	3/4" sq.	9	5	1014-L	22"	0" to 20"	1 1/4" x 15"	1 3/8" hex.	28	53 1/2
1012-L	8 1/2"	0" to 10"	11/16" x 9"	3/4" sq.	9	5 1/2	1015	21 1/2"	0" to 20"	1 1/2" x 15"	1 7/8" hex.	35	83
1013	10"	0" to 12"	13/16" x 12"	7/8" sq.	15	15	1015-L	28"	0" to 26"	1 1/2" x 15"	1 7/8" hex.	35	93 1/2
1013-L	15"	0" to 14"	13/16" x 12"	7/8" sq.	15	18	1016	24"	0" to 30"	2" x 18"	2 3/8" hex.	50	170
1013 1/2	14"	0" to 14"	1" x 13 1/2"	1 1/4" hex.	22	34	1016-L	36"	0" to 36"	2" x 18"	2 3/8" hex.	50	209

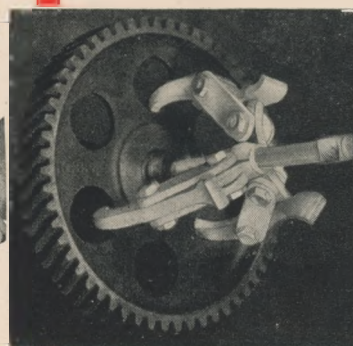
*Double-end, reversible arms. For A, B, C and D, See Illustration on Page 4.

GRIP-O-MATIC REVERSIBLE ARM PULLER IN ACTION

The photograph at the right illustrates a typical application involving the No. 1001 Grip-o-matic Puller. These tools are so versatile that hundreds of service jobs can be accomplished with them and it would be impossible to illustrate all of them. To increase the scope and utility of these pullers we recommend the use of the Bearing Pulling Attachments on page 7 in combination with them.

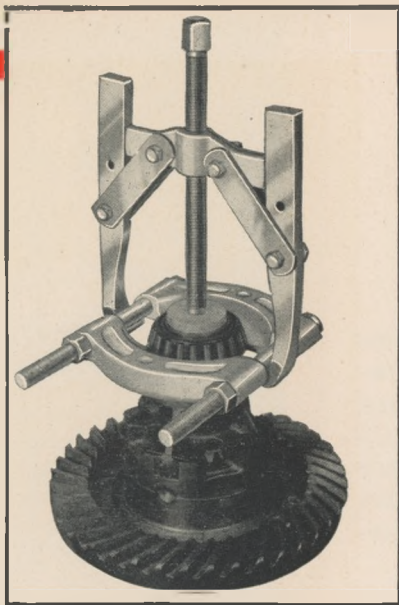


3-ARM GRIP-O-MATIC PULLER IN ACTION



This photograph at the left is a typical application showing the No. 1011 removing a gear. Triple-grip pullers are available in a wide range of sizes and

every size is adjustable to a variety of applications. No service shop regardless of the type of maintenance work done should be without two or three of these versatile pullers. Consult the table above for the pullers that will meet your requirements.



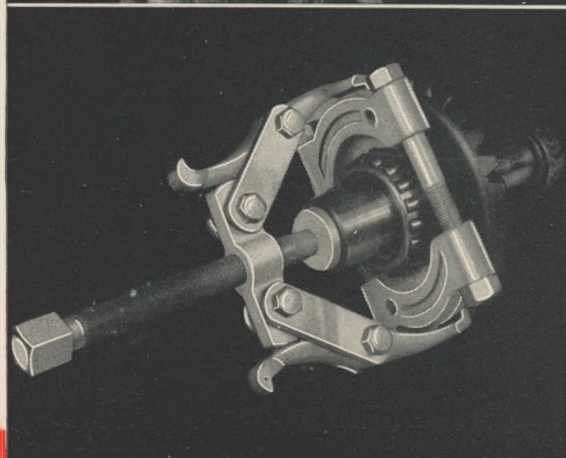
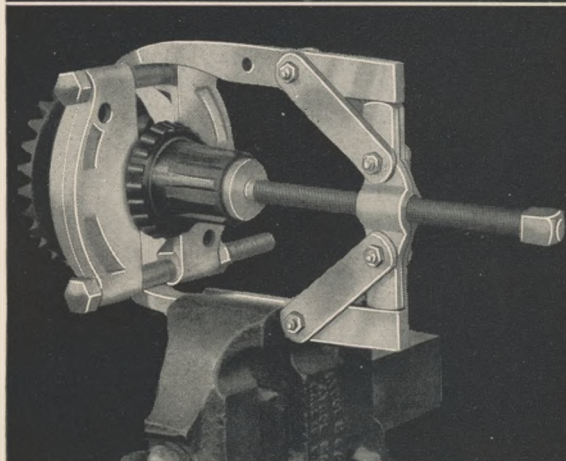
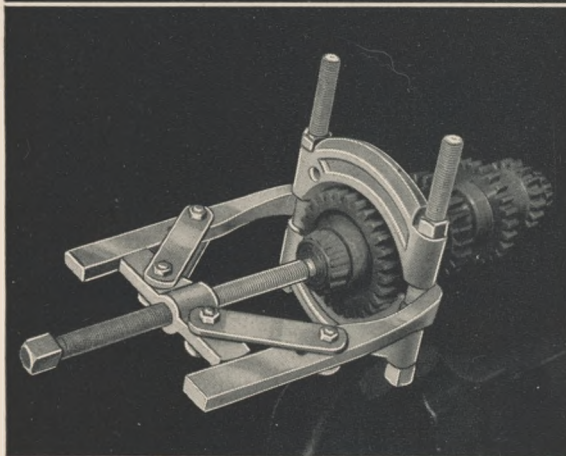
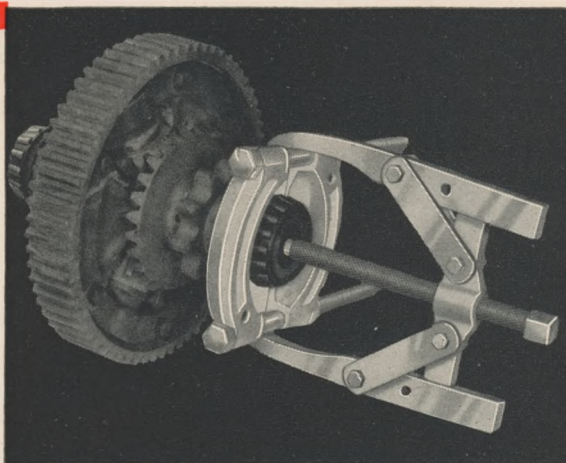
USING BEARING PULLING ATTACHMENTS WITH GRIP-O-MATICS



1. Removing an axle shaft gear bearing without damage is made easy with this combination.
2. The same combination is used to remove a Timken bearing from a differential shaft assembly.
3. In this photograph the No. 1003 Grip-o-matic used with the No. 952 Pulling Attachment is shown removing a counter shaft gear and bearing at the same time.
4. Removing a Timken bearing from a differential gear and sprocket assembly is simplified as shown in Figure 4.
5. The No. 1001 Grip-o-matic in use with the No. 950 Attachment is shown removing a pulley gear bearing.



OTC Bearing Pulling Attachments are designed especially for the removal and replacement of bearings but are actually used for a great many other jobs as well. Used with OTC Push-Pullers and Grip-o-matic Pullers they solve many otherwise impossible service and maintenance operations.





BEARING PULLING ATTACHMENTS

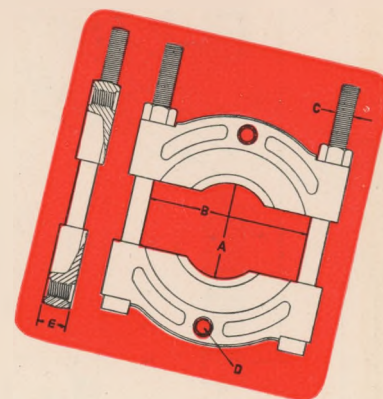
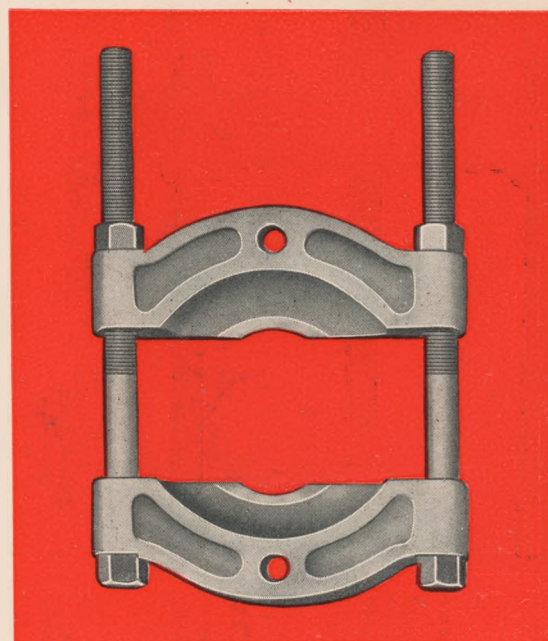
OTC Bearing Pulling Attachments are available in six sizes ranging in capacity from a minimum of 0" to a maximum of 10" and in proportionate strength and ruggedness. There is an attachment for each corresponding size of Grip-o-matic Puller and Push-Puller. (See pages 4 and 8 for Pullers.)

Bearing Pulling Attachments increase the scope and range of pullers and no set of pullers is complete without two or three of these attachments. The knife-like edges of these tools can be forced behind a bearing or gear where space is too limited to apply the hooks of a puller. In this manner many parts can be removed without damage and at a substantial saving in time.

By exerting the pulling strain against the inner race instead of against the rollers or snap-rings, bearings can be removed quickly and easily without damage, using either an OTC Grip-o-matic or Push-Puller as the power unit.

These attachments can also be utilized as arbor press bed plates and are very practical for this purpose.

The first four sizes 950, 951, 952 and 952-A are recommended for automotive, tractor, aircraft and refrigeration work. The last two sizes are recommended for industrial maintenance purposes. The specifications below will permit you to select the sizes to meet your requirements.



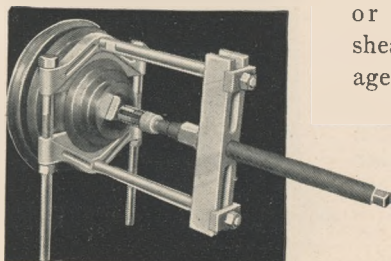
SPECIFICATIONS

Tool No.	"A"		"B"	"C"	"D"	"E"	Wt. in Lbs.	Use with Grip-o-matic No.	Use with Push-Puller No.
	Max.	Min.							
950	2 1/4"	0"	2 1/4"	3 1/8"	3 1/8"-16	5 1/8"	1 1/4	1001-1002	927
951	4 1/4"	0"	4 1/4"	5 1/8"	5 1/8"-18	15 1/16"	5	1002-1003	927-930
952	5 3/4"	1"	6"	3 1/4"	5 1/8"-18	1 1/4"	11	1003-1003 1/2	930-938
952-A	9"	1"	6"	3 1/4"	5 1/8"-18	1 1/4"	12	1003-1003 1/2	930-938
952-D	7 1/2"	1"	7 1/8"	7 1/8"	1"-14	1 3/8"	16 1/2	1003 1/2-1004	938-P-939
953	9"	1"	10"	1 1/8"	1"-14	1 7/8"	43	1004-1005	939

SHEAVE PULLER ATTACHMENTS

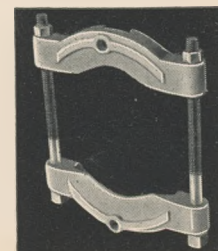
OTC Sheave Puller Attachments are used with either OTC Grip-o-matic Pullers or Push-Pullers as shown in the table below. They simplify the removal of single or multiple drive sheaves without damage. The attachment

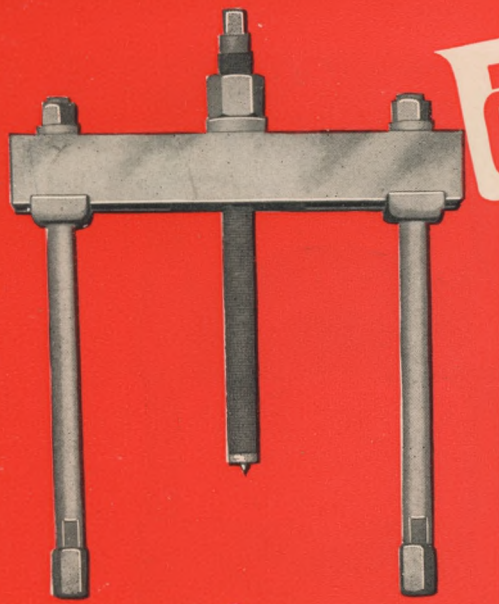
is clamped down in the V-groove and thus distributes the pulling strain evenly around a large percentage of the periphery. This tool is essential in every industrial plant and is a necessity also on large tractors and diesel engines. Furnished in two sizes as listed below.



SPECIFICATIONS

Tool No.	SPREAD		Use with Grip-o-matic No.	Use with Push-Puller No.	Wt. Lbs.
	Max.	Min.			
679	6"	1 1/2"	1002-1003	927-930	5
680	10"	2 1/2"	1003 1/2-1004	930-938	21 1/2





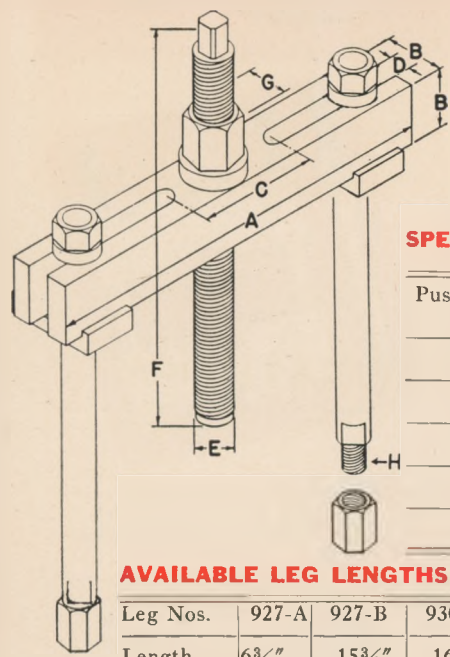
PUSH-PULLERS

The most versatile and universal tools of their kind, OTC Push-Pullers will actually do more difficult removing and replacing jobs than any similar tool on the market. It is actually a portable press which can be used on field or shop maintenance jobs. It is a basic tool of the OTC PULLING SYSTEM and with its attachments and adaptors is recognized as the most outstanding tool of its kind. It is used to remove or replace bearings, gears, pinions, pulleys, wheels, bushings, etc., and does these jobs without damage to expensive parts.

OTC Push-Pullers are approved and recommended by leading Tractor and Bearing manufacturers and are endorsed by maintenance men everywhere.

Five sizes are available to meet the maintenance requirements of every industry.

Many industrial applications showing this tool with its attachments are illustrated in our new bulletin No. PE-1946 which can be obtained from any OTC distributor. Bulletins are available also for each make of tractor and show this tool in operation on tractor maintenance jobs.



SPECIFICATIONS

Push-Puller No.	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	Weight Less Legs
927	8 $\frac{1}{4}$ "	1 $\frac{3}{8}$ "	2"	$\frac{1}{2}$ "	$\frac{5}{8}$ "-18	12"	1"	$\frac{5}{8}$ "-18	4 $\frac{1}{2}$ lbs.
930	10 $\frac{1}{2}$ "	2"	4 $\frac{3}{4}$ "	$\frac{3}{4}$ "	1"-14	13"	1 $\frac{1}{2}$ "	$\frac{5}{8}$ "-18	13 $\frac{1}{2}$ lbs.
938	13 $\frac{1}{2}$ "	2"	4 $\frac{3}{4}$ "	$\frac{3}{4}$ "	1"-14	13"	1 $\frac{1}{2}$ "	$\frac{5}{8}$ "-18	15 lbs.
938-P	16"	2 $\frac{1}{4}$ "	6 $\frac{1}{2}$ "	1"	1 $\frac{1}{4}$ "-12	15 $\frac{1}{2}$ "	1 $\frac{7}{8}$ "	1"-14	25 $\frac{1}{2}$ lbs.
939	18"	2 $\frac{1}{2}$ "	8 $\frac{1}{2}$ "	1"	1 $\frac{1}{2}$ "-12	16 $\frac{1}{2}$ "	2 $\frac{1}{4}$ "	1"-14	36 $\frac{1}{2}$ lbs.

AVAILABLE LEG LENGTHS

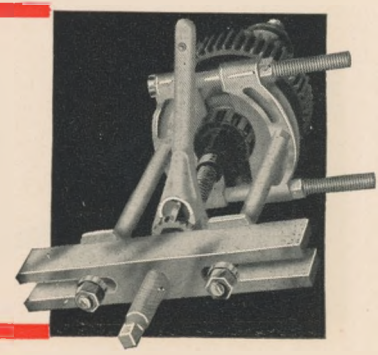
Leg Nos.	927-A	927-B	930-B	930-C	930-D	930-E	938-PA	938-PB	938-PC	939-A	939-B	939-C
Length	6 $\frac{3}{4}$ "	15 $\frac{3}{4}$ "	16 $\frac{1}{2}$ "	22 $\frac{1}{2}$ "	9 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "	8"	18"	28"	8"	18"	28"
Use with Tool No.	927	927	930 938	930 938	930 938	930 938	938-P	938-P	938-P	939	939	939
Use Connectors No.	916	916	924	924	924	924	932-B	932-B	932-B	932-B	932-B	932-B
Weight per Pair—Lbs.	1 $\frac{1}{2}$	3 $\frac{1}{4}$	6 $\frac{1}{2}$	9 $\frac{3}{4}$	4 $\frac{1}{4}$	2 $\frac{1}{2}$	6 $\frac{3}{4}$	12 $\frac{1}{2}$	18 $\frac{1}{2}$	8	15	22

NUMBER 930-B-C-D-E LEGS ARE USED ON BOTH 930 AND 938 PUSH PULLERS.

PUSH-PULLER RATCHET No. P-61

Maintenance men already having an OTC Push-Puller will welcome the addition of this new reversible ratchet built especially for use with the 930 or 938 Push-Puller. When utilizing the Push-Puller as a puller and the forcing nut is beneath the slotted cross block (see illustration), this ratchet will speed up the pulling operation 50 per cent. Just leave it on the nut and apply the leverage. This ratchet is used with a detachable tubular handle which can be removed when the extra leverage is not required.

No. P-61—Reversible Ratchet less Handle. Wt. 5 $\frac{1}{2}$ lbs.
No. M-28—Tubular Handle (only). Wt. 2 $\frac{3}{4}$ lbs.

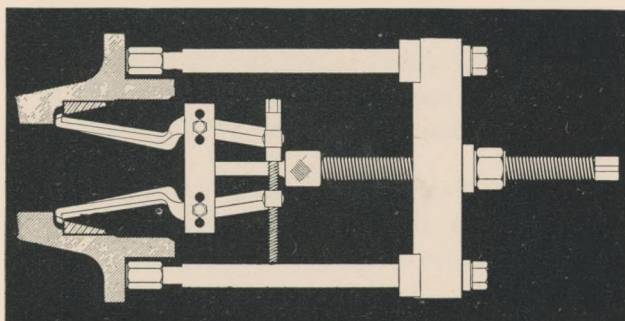
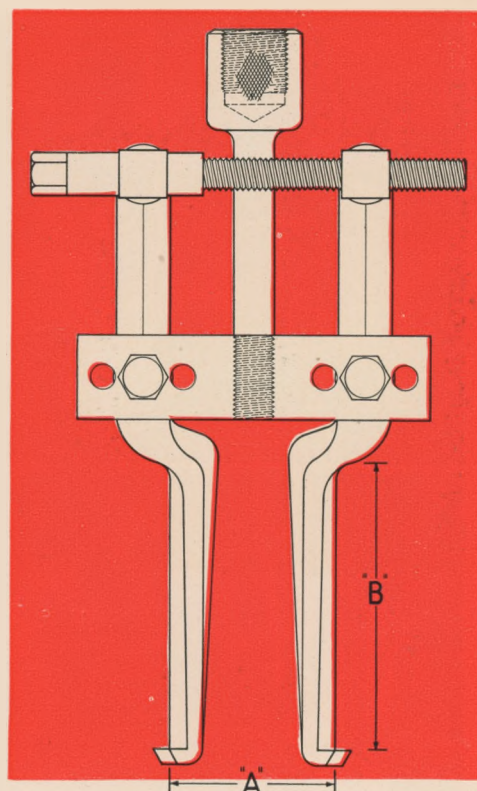




BEARING CUP PULLING ATTACHMENTS

The removal of bearing cups (outer races) from blind holes presents a very serious maintenance problem where adequate tools are not available. With OTC tools outer bearing races can be removed and in some instances, replaced quickly and easily and without damage either to the race or to the housing. The OTC Bearing Cup Pulling Attachments obtain a positive grip and will not slip off when pressure is applied. They eliminate the need for a cutting torch or the ruinous "chisel" method so often used.

Five Bearing Cup Pulling Attachments are available, giving a range of adjustments from 1½" to 9" inside diameter. With each size attachment a corresponding size of Push-Puller is available to furnish the power. The cross-sectional line drawing left below shows the proper procedure for the use of these tools.

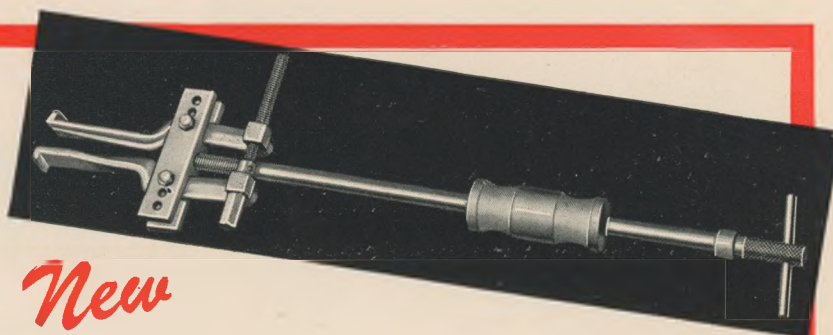


SPECIFICATIONS

Puller No.	"A"		"B"	Weight Lbs.	Use with Tool No.
	Max.	Min.			
943	6"	1½"	4"	4	927-930-938
943-A	6"	1½"	5½"	5	927-930-938
943-C	5"	1½"	2¼"	3½	927-930-938
943-D	7½"	2½"	5"	7½	938-P
947	9"	3"	6"	11½	939

SLIDE HAMMER PULLER NO. 943-T

Popular demand for a complete inside puller has necessitated the addition of a Slide Hammer assembly which can be used with the No. 943 Bearing Cup Pulling Attachment. This combination can be used to pull out bearing races, grease retainers, oil seals, etc., and is a fast operating tool when used in this manner. Any customer already having an OTC No. 943, 943-A or 943-C Bearing Cup Pulling Attachment



New

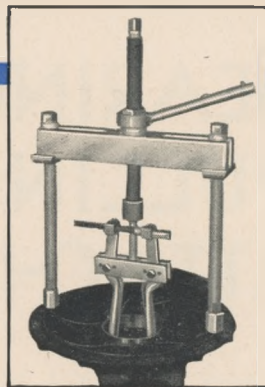
needs only purchase the 943-S Slide Hammer assembly to obtain the complete tool.

No. 943-T—Slide Hammer Puller complete.

Wt. 8¼ lbs.

No. 943-S—Slide Hammer Assembly (only).

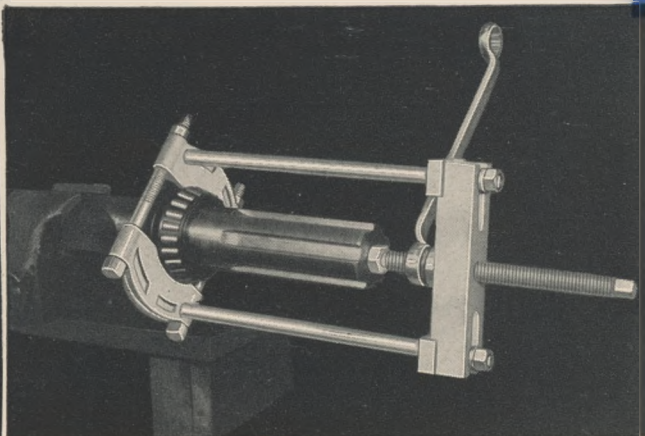
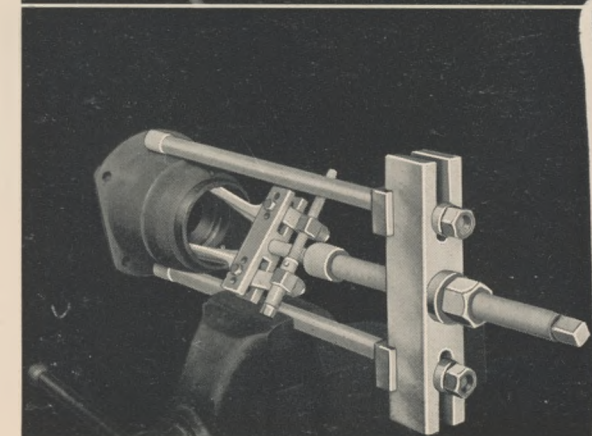
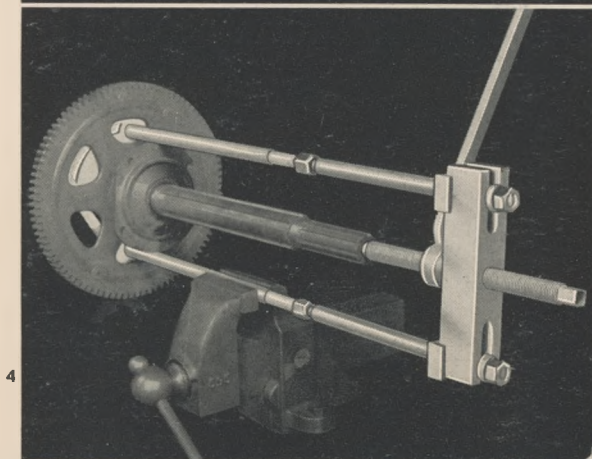
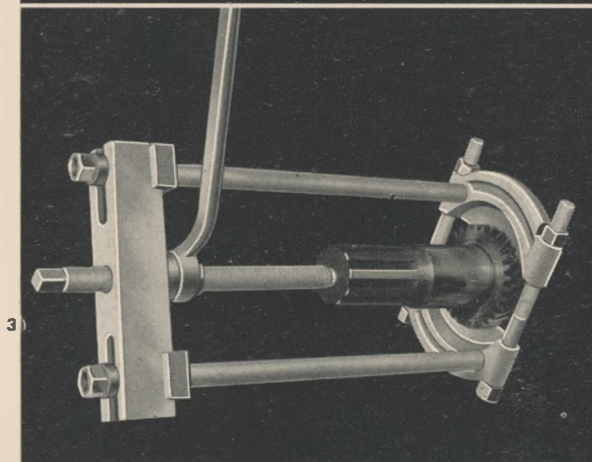
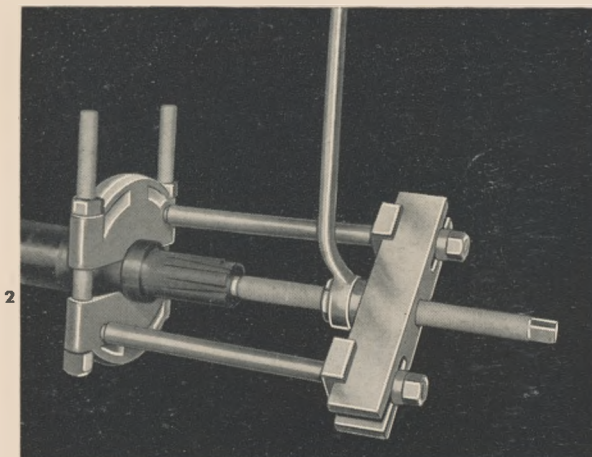
Wt. 4¾ lbs.



TYPICAL APPLICATIONS OF PUSH-PULLERS IN ACTION

★

1. Removing a bearing cup with the No. 943 Cup Pulling Attachment.
2. Removing an inner Hyatt race with the No. 952 Bearing Pulling Attachment.
3. Removing a crankshaft gear with the No. 952 Bearing Pulling Attachment.
4. By joining two pairs of legs together the additional reach necessary to pull this spline shaft gear in place is made easy. The No. 952 Bearing Pulling Attachment is used behind the gear.
5. The No. 943 Bearing Cup Pulling Attachment is shown with the Push-Puller removing a bearing cup from a differential quill.
6. In this illustration the No. 938 Push-Puller is shown in combination with the No. 952 Bearing Pulling Attachment removing a tapered bearing from an axle shaft.



THREADED ADAPTORS

A variety of these female adaptors is available for use with OTC Push-Pullers. They are utilized as leg connectors for joining two pairs of Push-Puller legs together to obtain greater reach or for use on threaded shafts in order to obtain a pushing action with the Push-Puller. Also used to pull axles, cam shafts, pinion shafts, etc. Line drawing at the right illustrates their use.

No.	Size	Wt.	No.	Size	Wt.
916	1/2-20 x 5/8-18	2 oz.	936-A	1-14 x 1 1/8-12	12 oz.
920	5/8-18 x 5/8-18	2 oz.	940	5/8-18 x 1 1/4-12	7 oz.
924	5/8-18 x 3/4-16	3 oz.	940-A	1-14 x 1 1/4-12	15 oz.
925	5/8-18 x 3/4-20	3 oz.	941	5/8-18 x 1 1/4-7	7 oz.
926	5/8-18 x 13/16-16	3 oz.	941-A	1-14 x 1 1/4-7	15 oz.
928	5/8-18 x 7/8-14	4 oz.	948	5/8-18 x 1 1/2-12	13 oz.
929	5/8-18 x 7/8-18	4 oz.	948-A	1-14 x 1 1/2-12	15 oz.
932	5/8-18 x 1-14	5 oz.	949	5/8-18 x 1 1/2-7	13 oz.
932-B	1-14 x 1-14	10 oz.	949-A	1-14 x 1 1/2-7	15 oz.
936	5/8-18 x 1 1/8-12	7 oz.			

No. 919—Adaptor Set. Includes one each 920, 924, 928, 932, 936 and 940. Wt. 2 lbs.

MALE ADAPTOR PLUGS

These adaptors are used with OTC Push-Pullers in pulling shafts, pinions and other parts having tapped ends. They are also used on Push-Puller legs to pull main bearing caps, cages, etc. They are essential parts of the OTC Pulling System and are furnished in popular sizes.

No.	Male End	Female End	Lgth.	Wt.	No.	Male End	Female End	Lgth.	Wt.
15-M	3/8-16	5/8-18	2 1/4"	5 oz.	37-M	1/8-Pipe	5/8-18	2 1/4"	5 oz.
16-M	1/2-20	5/8-18	2 1/4"	5 oz.	39-M	1/4-Pipe	5/8-18	2 1/4"	5 oz.
17-M	1/2-13	5/8-18	2 1/4"	5 oz.	41-M	3/8-Pipe	5/8-18	2 1/4"	5 oz.
20-M	5/8-11	5/8-18	2 1/4"	5 oz.	43-M	1/2-Pipe	5/8-18	2 1/4"	5 oz.
24-M	3/4-16	5/8-18	2 1/4"	5 oz.	20-P	5/8-11	1-14	2 1/2"	9 oz.
25-M	3/4-10	5/8-18	2 1/4"	5 oz.	24-P	3/4-16	1-14	2 1/2"	10 oz.
28-M	7/8-14	5/8-18	2 1/4"	6 oz.	25-P	3/4-10	1-14	2 1/2"	10 oz.
29-M	7/8-9	5/8-18	2 1/4"	6 oz.	28-P	7/8-14	1-14	2 3/4"	12 oz.
32-M	1-14	5/8-18	2 1/4"	6 oz.	29-P	7/8-9	1-14	2 3/4"	12 oz.
36-M	1 1/8-12	5/8-18	2 1/4"	8 oz.	36-P	1 1/8-12	1-14	2 3/4"	13 oz.

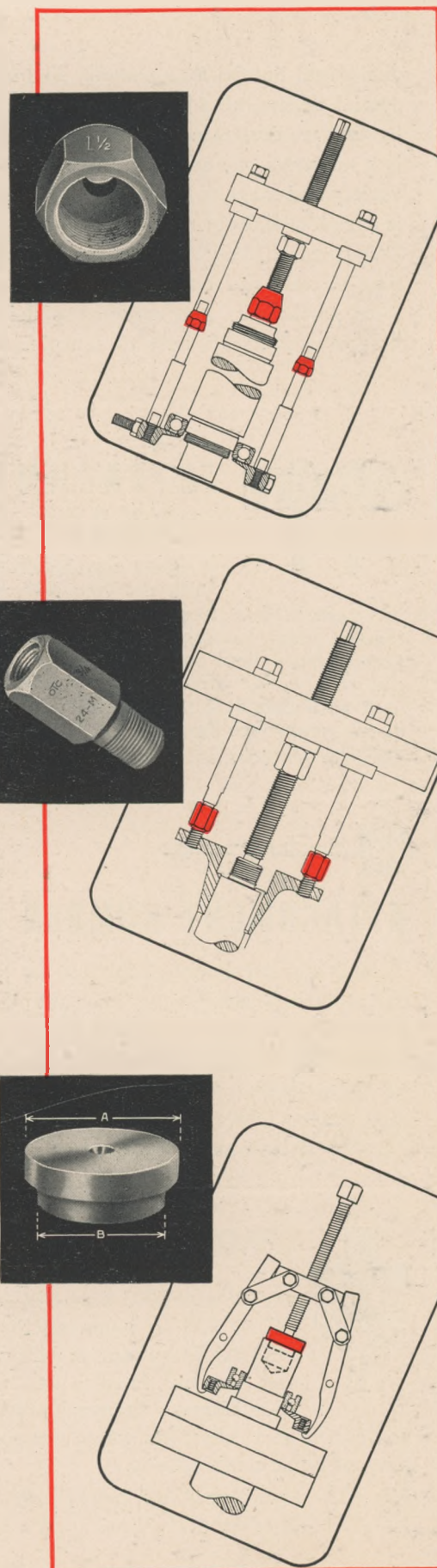
STEP PLATE ADAPTORS

Step Plate Adaptors are for use with OTC Grip-o-matic Pullers and Push-Pullers when removing parts from hollow shafts or housings. The step plate is placed over the end of the hollow shaft to provide a base against which the forcing screw may bear. In selecting step plates, the inside diameter of the shaft should correspond to the "B" dimension shown in the photograph at the right.

No.	"A"	"B"	Wt.	No.	"A"	"B"	Wt.
630-1	1"	3/4"	1 oz.	630-10	2 3/8"	1 7/8"	12 oz.
630-2	1 1/8"	7/8"	2 oz.	630-11	2 1/2"	2"	1 1/4 lb.
630-3	1 1/4"	1"	2 oz.	630-12	2 5/8"	2 1/8"	1 1/4 lb.
630-4	1 3/8"	1 1/8"	3 oz.	630-13	2 3/4"	2 1/4"	1 1/2 lb.
630-5	1 5/8"	1 1/4"	5 oz.	630-14	2 7/8"	2 3/8"	1 1/2 lb.
630-6	1 3/4"	1 3/8"	7 oz.	630-15	3"	2 1/2"	1 3/4 lb.
630-7	1 7/8"	1 1/2"	7 oz.	630-16	3 1/4"	2 3/4"	2 lb.
630-8	2"	1 5/8"	9 oz.	630-17	3 1/2"	3"	2 1/4 lb.
630-9	2 1/8"	1 3/4"	10 oz.				

No. 630-S—Set 11 Step Plates include 630-1 to 630-11 incl. Wt. 5 lbs.

No. 630-T—Set 6 Step Plates 630-12 to 630-17 incl. Wt. 10 1/2 lbs.



Additional Special attachments, adaptors and special pullers, all a part of the OTC Pulling System are illustrated on this page. Each tool is a universal one and will operate on a wide variety and range of service jobs. No puller set is complete without these inexpensive, yet important tools. They are well suited to automotive, aircraft and tractor maintenance operations particularly and every shop doing this kind of work should have these tools.



ATTACHMENT NUMBER 945

A useful attachment for use with the Nos. 927, 930 or 938 Push-Pullers (Page 9). Built especially to remove main bearing caps, crankshaft balancers, fan pulleys and timing gears. Equipped with two $\frac{3}{8}$ " USS Cap Screws. Can also be used as a complete unit by using No. 515-S forcing screw (see Page 80).
No. 945—Attachment, Weight 1 pound.



ATTACHMENT NUMBER 946

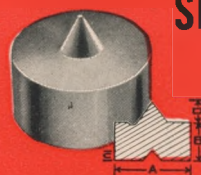
A small but extremely useful tool for pulling and replacing Valve Guides. Used as an attachment with the No. 927 Push-Puller (Page 9). Burned valve guides, difficult to remove can be pulled easily with this attachment. An essential tool in every automotive service shop.
No. 946—Attachment, Weight 4 oz.



PILOT BEARING PULLER NUMBER 955

For use with OTC Push-Pullers No. 927 or 930 in removing Flywheel Pilot Bearings on automobiles, trucks and tractors. Is also used with a Slide Hammer as shown on page 17, and as a unit at the right where obstructions prevent other combinations.

No. 955—Attachment $\frac{1}{2}$ " to $1\frac{1}{2}$ ". Wt. 1 lb.
No. 956—Attachment $\frac{1}{8}$ " to 2". Wt. $1\frac{1}{4}$ lb.



SHAFT PROTECTORS

A range of sizes adequate for use with OTC Gripomatic and Push-Pullers is available. These adaptors protect the centers on the end of the shaft when heavy pressure is applied.
No. 625-A—Set of 6 above. Wt. 1 lb.

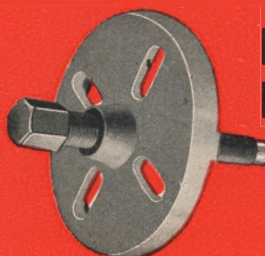
No.	"A"	"B"	"C" 60°	"D" 60°
625-1	$1\frac{1}{4}$ "	$\frac{3}{4}$ "	$\frac{3}{8}$ "	$\frac{7}{16}$ "
625-2	$1\frac{1}{4}$ "	$\frac{3}{4}$ "	$\frac{3}{8}$ "	$\frac{3}{8}$ "
625-3	1"	$\frac{3}{4}$ "	$\frac{3}{8}$ "	$\frac{5}{16}$ "
625-4	$\frac{3}{4}$ "	$\frac{3}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "
625-5	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{4}$ "
625-6	$\frac{5}{8}$ "	$\frac{5}{8}$ "	$\frac{3}{16}$ "	$\frac{3}{16}$ "



BUSHING EXTRACTOR ATTACHMENT

Four sizes of these attachments are available for use with Push-Pullers No. 927, 930 and 938 (see Page 9). These extractors are built to remove bronze bushings which are located in blind holes. The tool is threaded into the bushing and cuts its own thread.

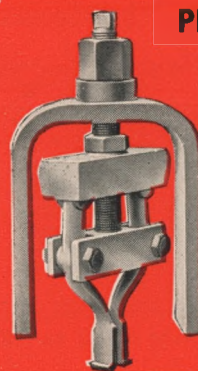
No. 931—Extractor $\frac{1}{2}$ " to $1\frac{1}{16}$ ", Weight 1 pound.
No. 933—Extractor $1\frac{1}{8}$ " to $1\frac{1}{2}$ ", Weight $1\frac{1}{4}$ pound.
No. 935—Extractor $1\frac{3}{8}$ " to $1\frac{15}{16}$ ", Weight 2 pounds.
No. 937—Extractor $1\frac{13}{16}$ " to $2\frac{3}{16}$ ", Weight $2\frac{3}{4}$ pounds.



FLANGE & PULLEY PULLER No. 917

A special universal puller designed to pull flanges and pulleys in a variety of sizes. The slotted holes permit adjustments from $1\frac{1}{4}$ " to $2\frac{5}{8}$ ". Two sizes, $\frac{1}{4}$ " or $\frac{3}{16}$ " and different lengths of cap screws can be used to increase its range of utility. Cap screws are not furnished with the tool.

No. 917—Flange Puller, Weight 1 lb.



PILOT BEARING PULLER

This unit is built especially for the removal of Flywheel Pilot Bearings where close quarters do not permit using a Slide Hammer. Especially good on tractors and trucks and will operate with the motor in place. Capacity $\frac{1}{8}$ " to 2".

No. MD-955—Puller, $\frac{1}{2}$ " to $1\frac{1}{2}$ ". Wt. 3 lbs.

No. MD-956—Puller, $\frac{1}{8}$ " to 2". Wt. 3 lbs.

No. 956-B—Bridge Assembly (only) Wt. 2 lbs.

PILOT BEARING PULLER

A very essential tool in every automotive and tractor maintenance shop. A complete unit for removing flywheel pilot bearings on practically all makes and models of automobiles, trucks and tractors. It can also be used to pull motor, generator and magneto bearings or on other inside pulling jobs within its capacity.

No. 954—Pilot Bearing Puller, capacity $\frac{1}{2}$ " to $1\frac{1}{2}$ " complete. Weight $3\frac{1}{4}$ lbs.

No. 954-B—Pilot Bearing Puller, capacity $\frac{7}{8}$ " to 2" complete. Wt. $3\frac{1}{2}$ lbs.

No. 954-A—Slide Hammer Assembly (only). Wt. $2\frac{1}{2}$ lbs.

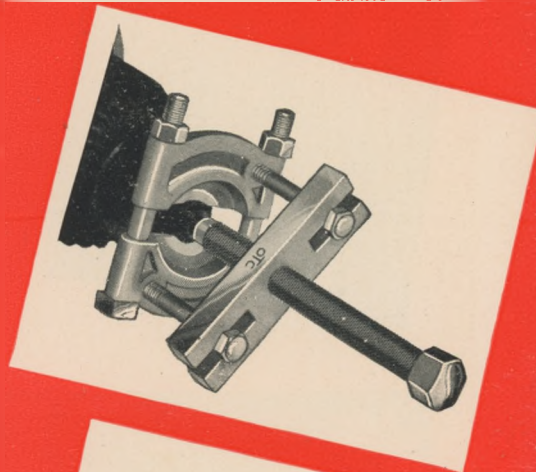


COMBINATION PULLER

NUMBER 980

An excellent combination designed especially for removing gears, bearings, races, etc., on motors, magnetos and generators. It has a capacity up to $2\frac{1}{4}$ ". It is composed of the No. 950 Bearing Pulling Attachment (Page 7) and the 515 Puller (Page 89) and both of these tools are included in the PA-19 set on Page 16.

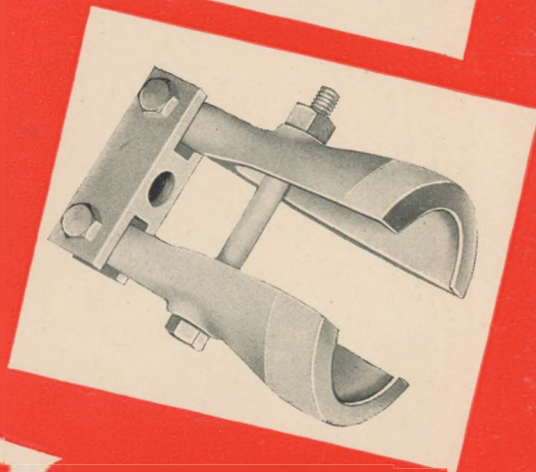
No. 980—Combination Puller. Wt. $3\frac{1}{4}$ lbs.



PINION SHAFT PULLER ATTACHMENT No. 944

This attachment is used with the No. 927 Push-Puller (Page 8) for removing the stub shaft drive pinions from the rear axle pinion shaft housing on Chevrolet and Buick cars where the shaft comes out through the back of the housing. Thousands of these attachments are in daily use all over the country. It solves one of the most difficult service operations encountered in Chevrolet and Buick service. This attachment is not a complete tool and must be used with the 927 Push-Puller.

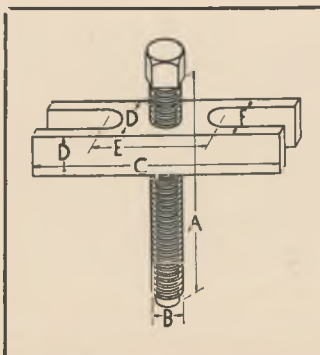
No. 944—Pinion Shaft Pulling Attachment. Wt. 3 lbs.



PULLING BARS



A series of Pulling Bars in various sizes is offered for special pulling operations. The slotted bars provide an adjustable range of sizes that fit many pulling requirements. Each bar is equipped with a forcing screw having the OTC Power-pitch thread which actually gives 32% more power than the conventional V-type thread.



Tie rods or legs can be purchased in pairs as listed on page 8. In this manner the tie rods may be threaded into a flat piece of steel which is then placed behind the spokes of the pulley or wheel to be removed.

SPECIFICATIONS

Tool No.	"A"	"B"	"C"	"D"	"E"	"F"	"G"	Use Legs No.	Wt. Lbs.
630-A	$10\frac{1}{2}$ "	$1\frac{3}{16}$ "-16	$8\frac{1}{4}$ "	$1\frac{3}{8}$ "	2"	$\frac{1}{2}$ "	$\frac{7}{8}$ " Sq.	927-A-B	$4\frac{1}{2}$
630-B	12"	1"-14	$13\frac{1}{2}$ "	2"	$4\frac{3}{4}$ "	$\frac{3}{4}$ "	$1\frac{1}{4}$ " Hex.	930-B-C-D-E	$13\frac{1}{2}$
630-C	$14\frac{3}{4}$ "	$1\frac{1}{4}$ "-12	16"	$2\frac{1}{4}$ "	$6\frac{1}{2}$ "	1"	$1\frac{3}{8}$ " Hex.	938-PA-PB-PC	$22\frac{3}{4}$
630-D	$14\frac{7}{8}$ "	$1\frac{1}{2}$ "-12	18"	$2\frac{1}{2}$ "	$8\frac{1}{2}$ "	1"	$1\frac{7}{8}$ " Hex.	939-A-B-C	31





Universal HUB PULLER

NUMBER 827

Distinctive features of design are embodied in the new OTC Universal Hub Puller to make it the outstanding tool of its kind on the market.

The sliding arms are readily adjustable and quickly adapted to any hub regardless of the number of wheel studs used and where the hub bolt circle does not exceed $7\frac{1}{2}$ ". It provides a straight pull and eliminates the danger of distorting the wheel lugs. It exerts a direct, powerful force that will remove the most stubborn wheel hub.

No. 827-B—Hub Puller complete with Striking Wrench.

Wt. 10 lbs.

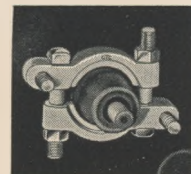
No. 827-A—Striking Wrench (only). Wt. 2 lbs.

FORD HUB PULLING ATTACHMENT No. 826-V

For use with the OTC Universal Hub Puller No. 827-B in pulling Ford Hubs from 1936 to 1946. This attachment is clamped behind the flange on the hub and the Hub Puller then hooked up to the attachment.

No. 826-V—Ford Hub Pulling Attachment.

Wt. $2\frac{1}{4}$ lbs.



OTC BUDD WHEEL WRENCH No. 1201

The most complete wrench yet devised for removing Budd Dual Wheels. Both double disc wheel cap nuts and double cap inner nuts can be separately removed by one man quickly and easily. The outer cap nut is removed as shown while the inner cap nut is held tight by means of an inner socket wrench.

An outboard jack support which can be quickly adjusted for height provides adequate support when pressure is applied. An adaptor No. 1201-6 is provided to permit the use of different size sockets to fit any size wheel lugs.

No. 1201-A—Budd Wheel Wrench, as illustrated. Wt. 28 lbs.

No. 1201-1A—Inner Socket $1\frac{3}{16}$ " and $\frac{7}{8}$ " opening. Wt. 6 lbs.

No. 1201-1B—Short Bar, 28" long. Wt. 4 lbs.

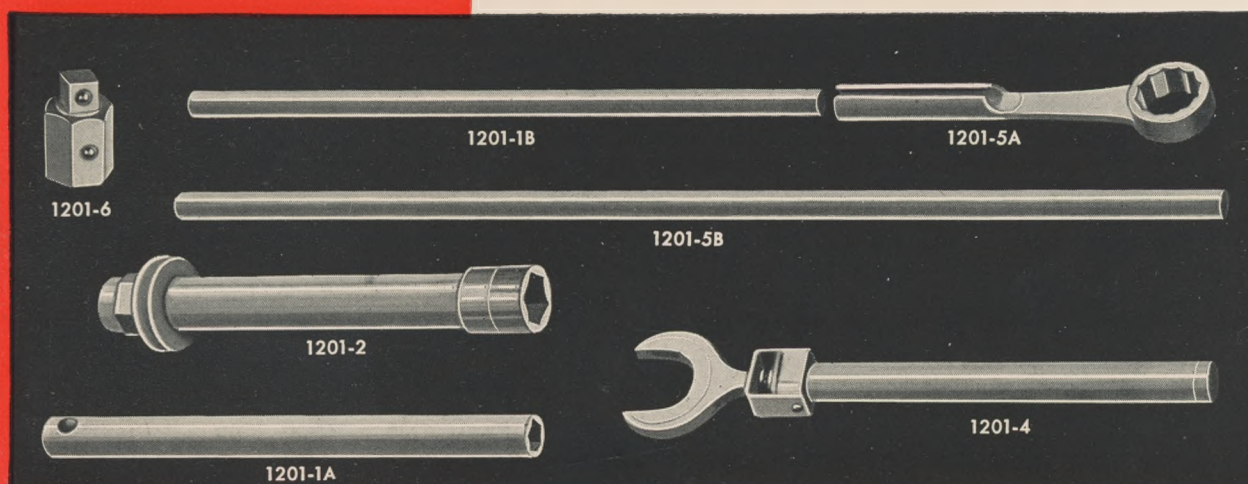
No. 1201-2—Outer Socket, $1\frac{1}{2}$ " Hex. Wt. 5 lbs.

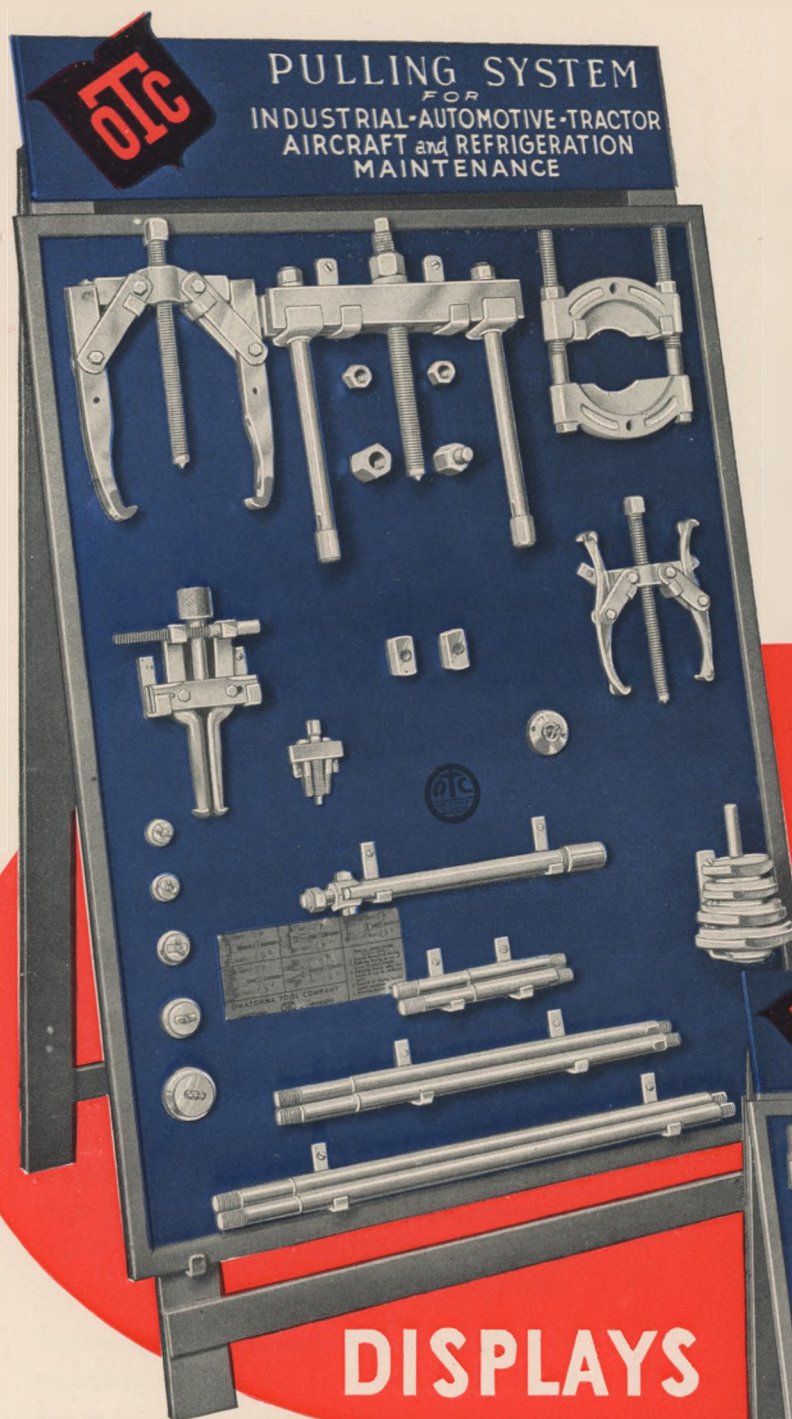
No. 1201-4—Outboard Jack Support. Wt. $3\frac{3}{4}$ lbs.

No. 1201-5A— $1\frac{3}{4}$ " Box Wrench. Wt. $1\frac{3}{4}$ lbs.

No. 1201-5B—Long Bar, 36". Wt. 6 lbs.

No. 1201-6— $1\frac{1}{2}$ " Hex. x $\frac{3}{4}$ " Square Adaptor. Wt. 1 lb.





DISPLAYS

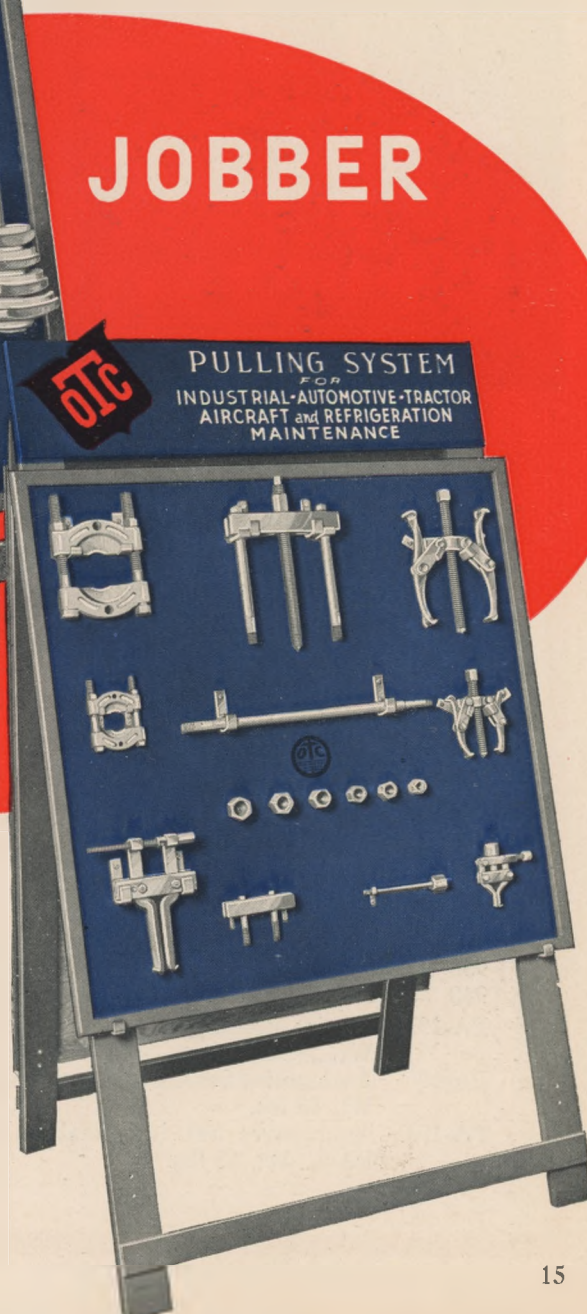
The lower photograph shows the opposite side of the easel with the PA-16 Automotive set mounted on it. This service board is 3' x 3' as compared to the 3' x 4' board above. The brackets are adjustable, however, to take both sizes and will accommodate a 4' x 4' industrial board as well.

These Service Boards are designed to provide a permanent place for the shopman's pullers and are substantially built for this reason. Wherever puller sets are sold they should be sold with the board to provide an adequate place for the customer to keep these tools. It also serves as an excellent advertisement of the shop facilities and attracts service work. In addition it has proved to be a practical method of keeping tools intact, thus eliminating lost parts.

JOBBER DISPLAY

This attractive easel will make a beautiful display for the jobbers' floor. The satin-plated tools stand out against the blue background and set them off in an appealing manner. Every jobber should have this sales stimulator in his show room. The photograph opposite shows the easel with an Allis-Chalmers Tractor Service Set mounted on it. Any one of the many OTC service sets will fit this easel equally well and the display will accommodate any two sets—tractor, automotive or industrial in the OTC line. Service boards as shown must be ordered separately.

No. JE-42—Jobber easel (only). Wt. 25 lbs.



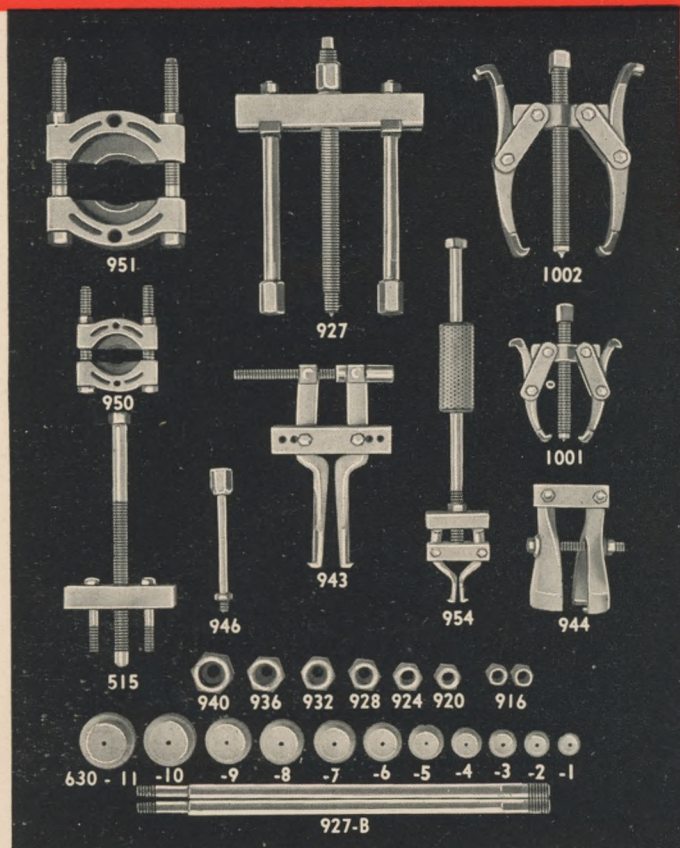
JOBBER



Automotive

No. PA-19

SERVICE SHOP PULLER SET



Tool No.	Description
950	Bearing Pulling Attachment
951	Bearing Pulling Attachment
927	Push-Puller with 927-A 6 $\frac{3}{4}$ " legs
927-B	Push-Puller Legs 15 $\frac{3}{4}$ " (pair)
1002	Grip-o-matic Puller
1001	Grip-o-matic Puller
943	Bearing Cup Pulling Attachment
954	Pilot Bearing Puller
946	Valve Guide Pulling Attachment
944	Pinion Pulling Attachment
515	Gear and Pulley Puller
630-S	Set Step Plate Adaptors, 630-1 to 630-11
916	Leg Connectors (pair)
920	Adaptor $\frac{5}{8}$ "-18 x $\frac{5}{8}$ "-18 female
924	Adaptor $\frac{5}{8}$ "-18 x $\frac{3}{4}$ "-16 female
928	Adaptor $\frac{5}{8}$ "-18 x $\frac{7}{8}$ "-14 female
932	Adaptor $\frac{5}{8}$ "-18 x 1"-14 female
936	Adaptor $\frac{5}{8}$ "-18 x 1 $\frac{1}{8}$ "-12 female
940	Adaptor $\frac{5}{8}$ "-18 x 1 $\frac{1}{4}$ "-12 female
PA-19B	Service Board (only) 3' x 4'. Wt. 24 lbs.
PA-19	Automotive Service Set, tools only. Wt. 43 lbs.
PA-19R	Automotive Set in Metal Case, PA-9. Wt. 55 lbs.

This new set is the last word in puller sets for the automotive maintenance trade. It combines all the power units necessary, together with the special attachments and adaptors needed to make a complete, universal puller set. The PA-19 Set will handle 90% of the jobs involving the removing and installing of gears, bearings, shafts, pinions, etc., found in the average garage.

These tools have been tried and tested in many shops over a period of years and have proven successful in every instance. They are recommended by leading bearing manufacturers and approved for use on practically all makes of cars. There is no set on the market as universal or versatile or that is so universally accepted as the ultimate in puller sets.

This set will eliminate the necessity for buying a special puller for each separate pulling operation and will displace most of the special pullers you now have in your shop.

It contains the tools illustrated at the left and listed left below. The set can be purchased either with a substantial service board on which each individual tool has a place or it can be purchased in a substantial metal box as illustrated on the opposite page.



Service Sets

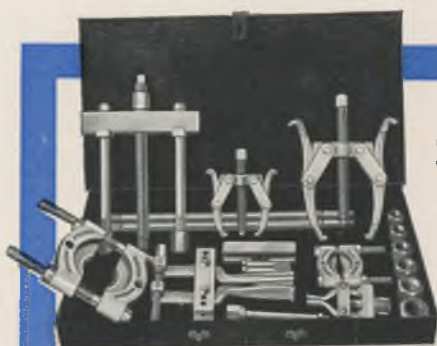


No. PA-16

SERVICE SHOP PULLER BOARD

A popular set of pullers that has proven itself in thousands of automotive service shops throughout the country. It is less complete than the set on the opposite page yet it is made up of universal pullers that can be adapted to hundreds of pulling operations found in the average shop. It provides tools which can be combined to remove and replace bearings, gears, pinions, pulleys, shafts, sprockets and other close fitting parts. Each major tool in the set is adjustable to a range which covers automotive work particularly.

This set eliminates the necessity for buying a special tool for each individual pulling job and actually reduces your investment in tools many times. The Grip-o-matic Pullers in this set have a range from 0" to 8" while the Push-Puller has approximately the same range for pushing or installing operations. The Bearing Cup puller has a range from 1½" to 6" while the Bearing Pulling Attachments range from 0" to 4¼".

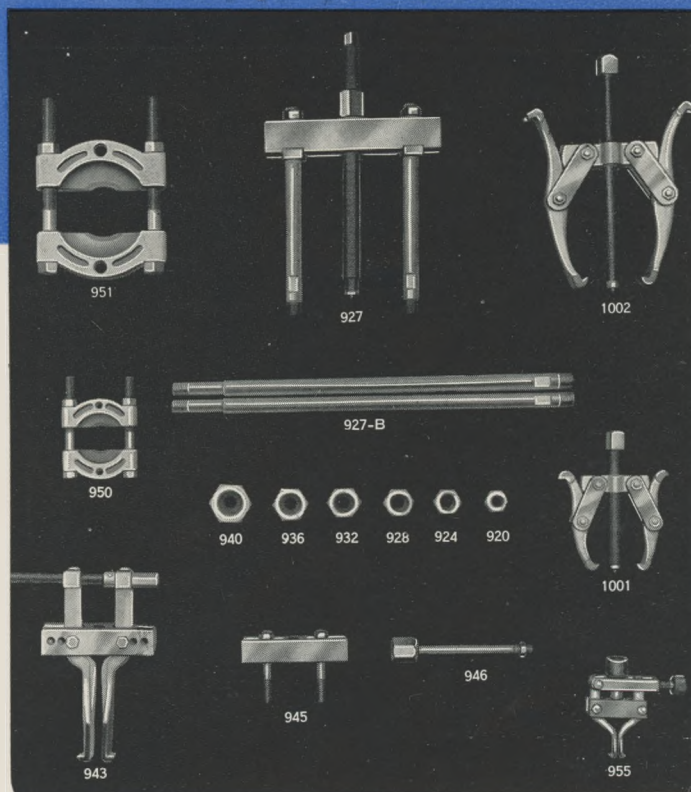


PA-16 SERVICE SET IN METAL CASE

The PA-16 Service Set listed at the right may be obtained in a sturdy metal box, as shown, for convenience in keeping the tools intact and to prevent loss. The metal case is 22½" x 12" x 2½" and is large enough to carry the complete set.

No. PA-9—Metal Box (only) 22½" x 12" x 2½". Wt. 12 lbs.

No. PA-16B, PA-16—Automotive Service Set in metal case. Wt. 43 lbs.



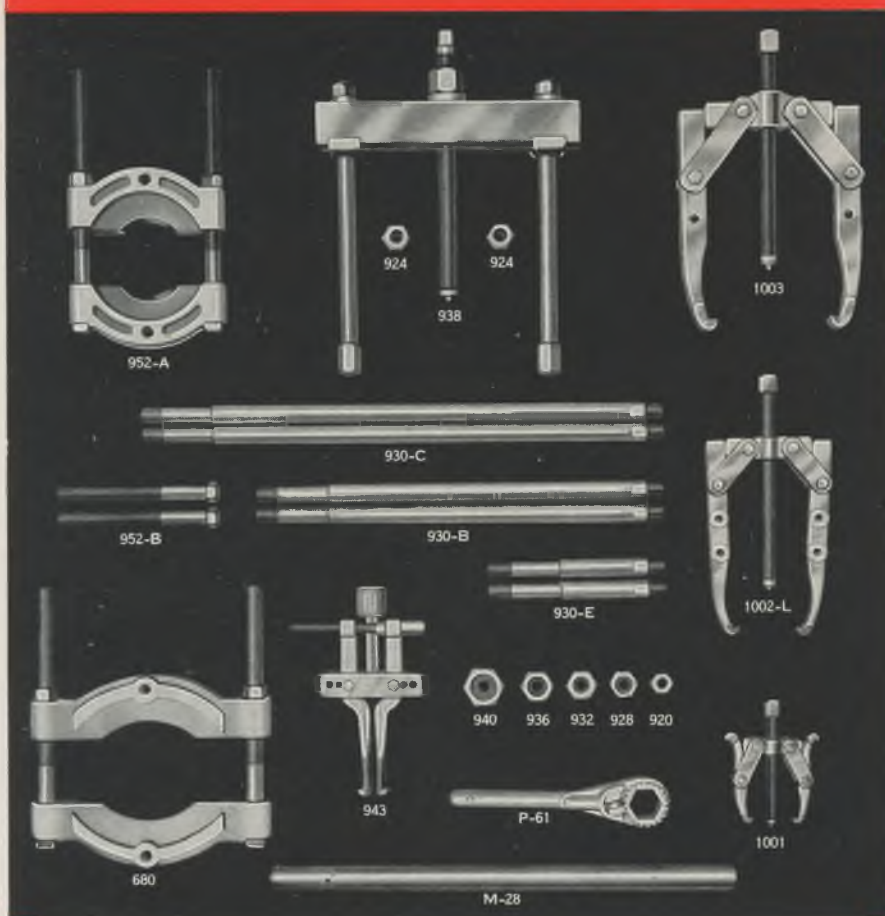
An attractive Service Board, substantially built, as a permanent place to keep these tools is optional.

- 1001 Grip-o-matic Puller 0" to 6"
- 1002 Grip-o-matic Puller 0" to 8"
- 927 Push-Puller with 927-A, 6¾" legs
- 927-B Push-Puller Legs 15¾" (pair)
- 950 Bearing Pulling Attachment
- 951 Bearing Pulling Attachment
- 943 Bearing Cup Pulling Attachment
- 945 Timing Gear Pulling Attachment
- 955 Pilot Bearing Pulling Attachment
- 946 Valve Guide Pulling Attachment
- 920 Adaptor ⅝"-18 x ⅝"-18 female
- 924 Adaptor ¾"-18 x ¾"-16 female
- 928 Adaptor ⅝"-18 x ⅞"-14 female
- 932 Adaptor ⅝"-18 x 1"-14 female
- 936 Adaptor ⅝"-18 x 1⅛"-12 female
- 940 Adaptor ⅝"-18 x 1¼"-12 female
- PA-15 Service Board (only) 3' x 3'. Wt. 24 lbs.
- PA-16 Automotive Service Set, tools only. Wt. 30 lbs.

REFRIGERATION *Service* SET



NUMBER PR-20



Tool No.	Description
952-A	Bearing Pulling Attachment
952-B	Forcing Bolts for 952-A Attachment
680	Sheave Pulling Attachment
938	Push-Puller with 930-D $9\frac{1}{2}$ " legs
930-B	Push-Puller Legs $16\frac{1}{2}$ " (pair)
930-C	Push-Puller Legs $22\frac{1}{2}$ " (pair)
930-E	Push-Puller Legs $4\frac{1}{2}$ " (pair)
1003	Grip-o-matic Puller
1002-L	Grip-o-matic Puller
1001	Grip-o-matic Puller
943	Bearing Cup Pulling Attachment
P-61	Reversible Ratchet for Push-Puller
M-28	Tubular Handle for P-61 Ratchet
920	Threaded Adaptor $\frac{5}{8}$ "-18 x $\frac{5}{8}$ "-18 female
924	Threaded Adaptor $\frac{3}{4}$ "-16 x $\frac{5}{8}$ "-18 female (pair)
928	Threaded Adaptor $\frac{7}{8}$ "-14 x $\frac{5}{8}$ "-18 female
932	Threaded Adaptor 1"-14 x $\frac{5}{8}$ "-18 female
936	Threaded Adaptor $1\frac{1}{8}$ "-12 x $\frac{5}{8}$ "-18 female
940	Threaded Adaptor $1\frac{1}{4}$ "-12 x $\frac{5}{8}$ "-18 female
PR-19	Refrigeration Service Board (only). Wt. 60 lbs.
PR-20	Refrigeration Service Set, Tools only. Wt. 115 lbs.

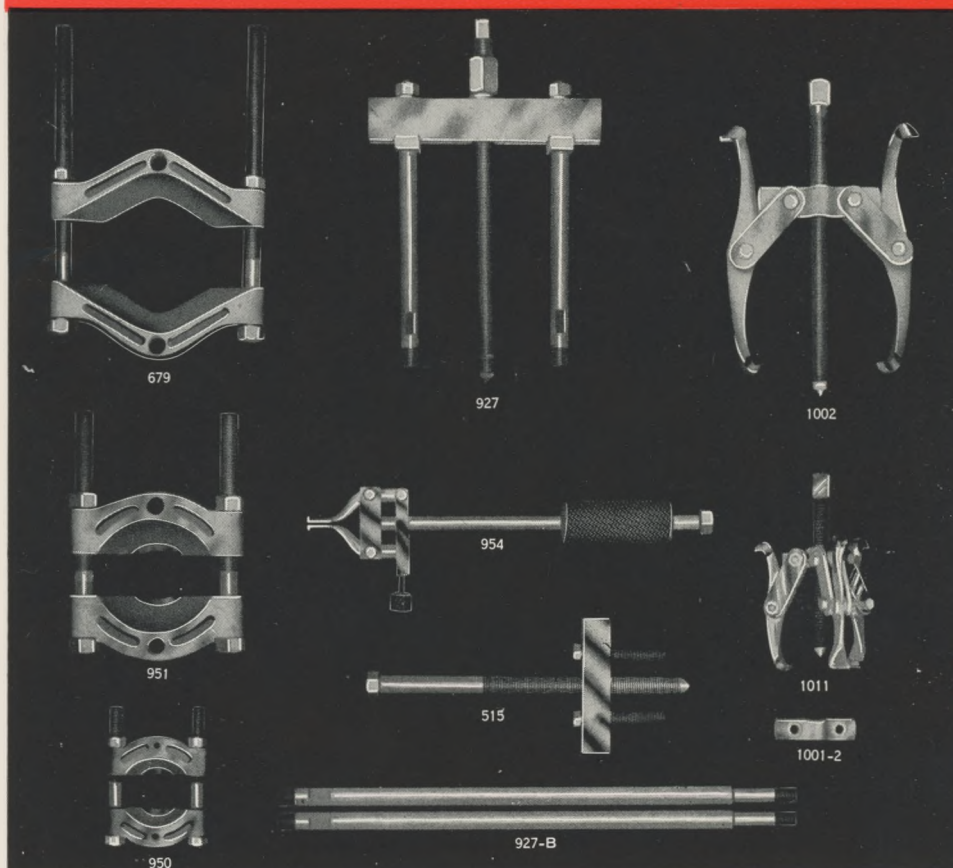
A complete set of pullers that will solve most of the maintenance problems of the refrigeration engineer and service man. Ideal for servicing commercial refrigeration units, ice plants and air conditioning equipment this set will remove and replace bearings, fans, impellers, sheaves and other parts that are difficult to remove. No other set offered the refrigeration trade can compare with the versatility of this combination.

It comprises six OTC basic Pulling Tools, which, with the addition of the Sheave Pulling Attachment and Threaded Adaptors, provide a range of adjustments that will meet every requirement. A reversible Ratchet is furnished in the set to speed up pulling jobs involving the Push-Pullers. For typical examples of pulling operations see pages 6 and 10.

A service board 4' x 4', substantially built and designed as a permanent place to keep these tools is optional. It is built of $\frac{3}{4}$ " plywood, with a heavy molding and steel brackets to receive each individual tool.

A complete range of Grip-o-matic Pullers and Push-Pullers together with additional sizes of attachments and adaptors are listed and illustrated on pages 4 to 13 inclusive.

REFRIGERATION *Service* SET NUMBER PR-11



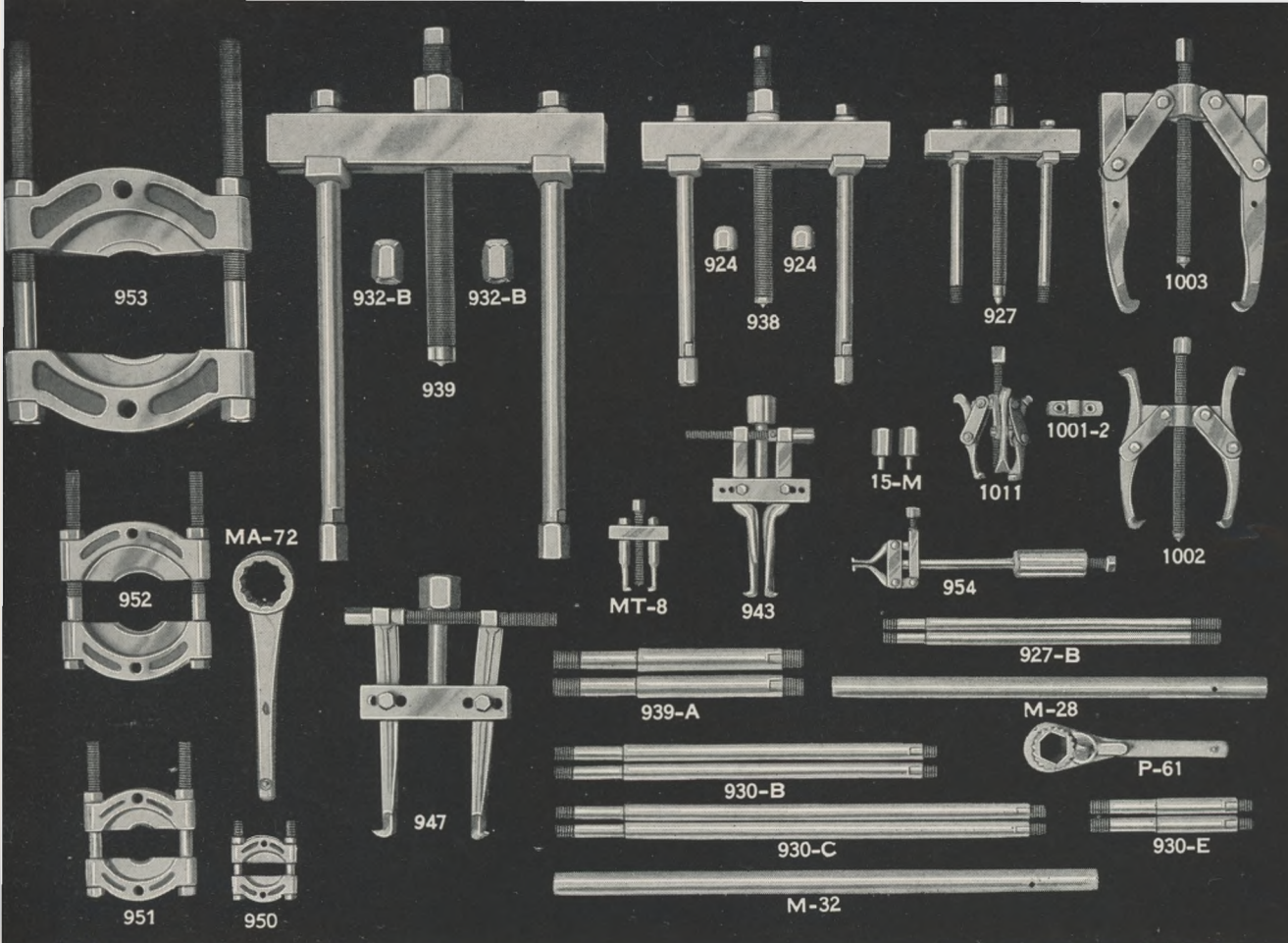
This attractive set as illustrated can be mounted on the wall of your service department. It will add to the appearance of your shop and serve as an advertisement of your service facilities.

Developed especially for the service and maintenance of small refrigeration units this set is complete and has the capacity necessary to handle all the pulling operations found on this equipment, such as the removal and replacement of gears, bearings, fans, etc. Especially assembled to meet the requirements of the refrigeration maintenance man, but equally efficient on air-conditioning units. The scope and range of this set can easily be expanded by the addition of larger tools listed and illustrated on preceding pages.

The Service Board, 3' x 3', is built of $\frac{3}{8}$ " plywood with a heavy molding and finished in attractive blue lacquer. The steel brackets are substantially built to provide a permanent place to keep these tools. The set can be purchased with or without the board as desired. It is recommended that the board be bought with the set to furnish a practical place to keep the tools and to reduce the danger of losing parts.

Tool No.	Description
679	Sheave Pulling Attachment
951	Bearing Pulling Attachment
950	Bearing Pulling Attachment
927	Push-Puller with No. 927-A $6\frac{3}{4}$ " legs
927-B	Legs for 927 Push-Puller $15\frac{3}{4}$ " (pair)
1002	Grip-o-matic Puller
1011	Grip-o-matic Puller (3 Arm)
1001-2	Two-way Head for 1011 Grip-o-matic Puller
954	Bearing Puller
515	Special Puller
PR-10	Service Board (only) 3' x 3'. Wt. 24 lbs.
PR-11	Refrigeration Set, Tools only. Wt. 32 lbs.

A complete range of Pullers and Attachments are listed and illustrated on pages 4 to 13 inclusive and provide a selection of sizes to meet every pulling job regardless of the type of equipment being serviced.



AVIATION *Service* SET

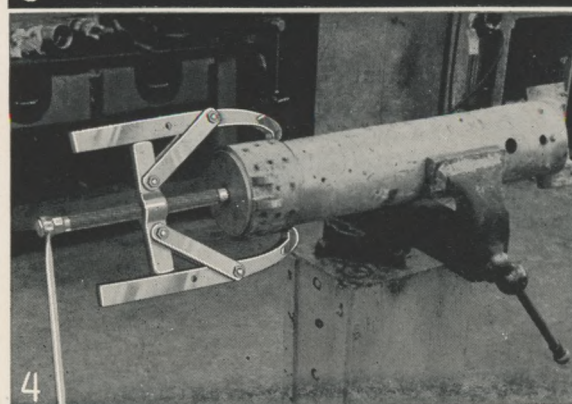
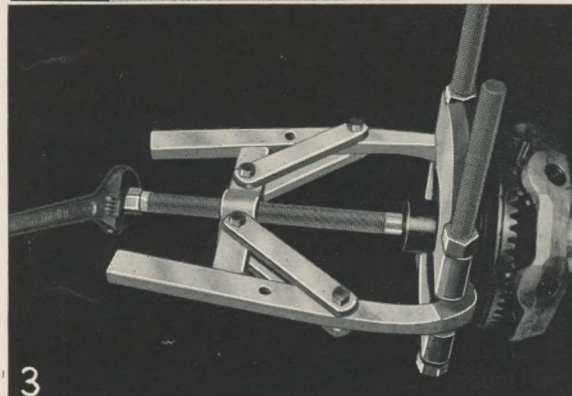
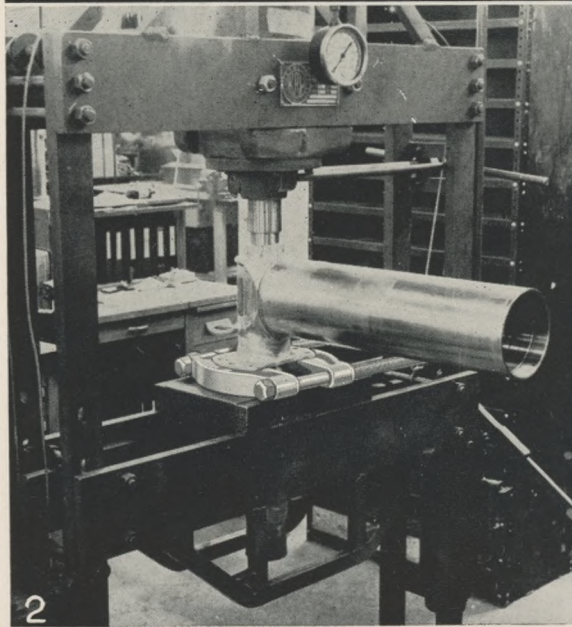
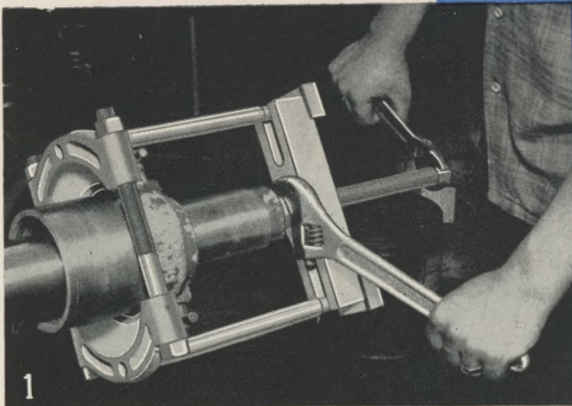
No. AS-27

The most complete aircraft maintenance set yet developed for this highly specialized field. Suitable both for shop and field service this set will handle a majority of the jobs involving the removing and replacing of gears, bearings, sleeves, impellers, collars and rings, etc., on all types and makes of aircraft from the smallest to the largest. It will do many difficult jobs on the air frame as well as on the engine and will save enough time on a few jobs to pay for itself many times over. In addition to savings in time and labor it will remove and replace parts without damage, thus saving expensive parts that might not be readily available.

The many combinations possible with these tools make them the most universal and versatile available anywhere. See opposite page for typical applications.

Tool No.	Description
1003	Grip-o-matic Puller
1002	Grip-o-matic Puller
1011	Grip-o-matic Puller, Triple-grip.
1001-2	Two-way forged Head for 1011
939	Push-Puller with 939-B 18" Legs
939-A	Legs for 939 Push-Puller 8" (pair)
938	Push-Puller with 930-D 9 1/2" Legs
930-B	Legs for 938 Push-Puller 16 1/2" (pair)
930-C	Legs for 938 Push-Puller 22 1/2" (pair)
930-E	Legs for 938 Push-Puller 4 1/2" (pair)
927	Push-Puller with 927-A 6 3/4" legs
927-B	Legs for 927 Push-Puller 15 3/4" (pair)
953	Bearing Pulling Attachment
952	Bearing Pulling Attachment
951	Bearing Pulling Attachment
950	Bearing Pulling Attachment
947	Bearing Cup Pulling Attachment
943	Bearing Cup Pulling Attachment
954	Pilot Bearing Puller
MT-8	Special Puller
932-B	Threaded Adaptors 1"-14 x 1"-14 female (pair)
924	Threaded Adaptors 5/8"-18 x 3/4"-16 female (pair)
15-M	Adaptors 5/8"-18 female x 3/8"-16 male (pair)
P-61	Reversible Push-Puller Ratchet for No. 938
MA-72	Heavy Duty Box Wrench 2 1/4"
M-28	Tubular Handle for P-61 Ratchet
M-32	Tubular Handle for MA-72 Box Wrench
AS-26	Service Board (only) 6' x 4'. Wt. 85 lbs.
AS-27	Aviation Service Set, Tools only. Wt. 215 lbs.

AVIATION SERVICE SET IN ACTION



1. This illustration shows the No. 938 Push-Puller used with the No. 952 Pulling Attachment removing the collar on a hydraulic wing jack.

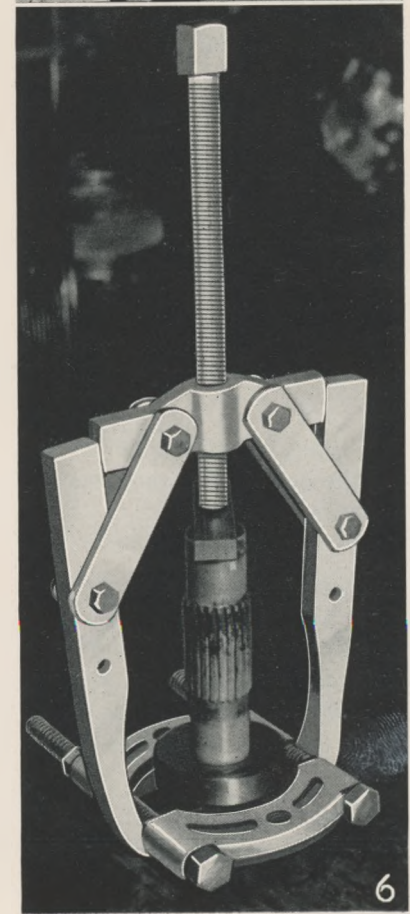
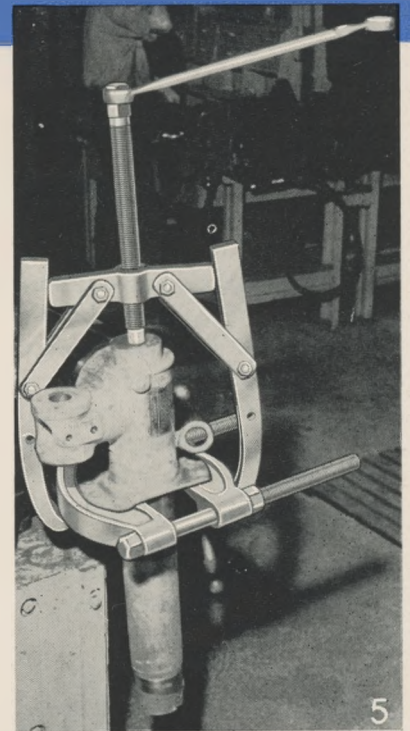
2. Using the No. 952 Pulling Attachment as an arbor press bed plate the operation shown illustrates the removal of an axle knuckle.

3. Using the No. 1003 Grip-o-matic Puller in combination with the No. 953 Attachment this illustration shows the removal of the ball bearing on the inner end of the propeller shaft.

4. The 1003 Grip-o-matic Puller is shown removing the collar on a hydraulic cylinder as a typical example of the work possible with this tool.

5. Pushing the axle out of the landing gear housing is another typical field operation accomplished with these tools.

6. Removing the ball bearing from the gear end of the impeller shaft with the No. 1003 Grip-o-matic and 952 Pulling Attachment.



AVIATION *Service* SET



No. AS-21

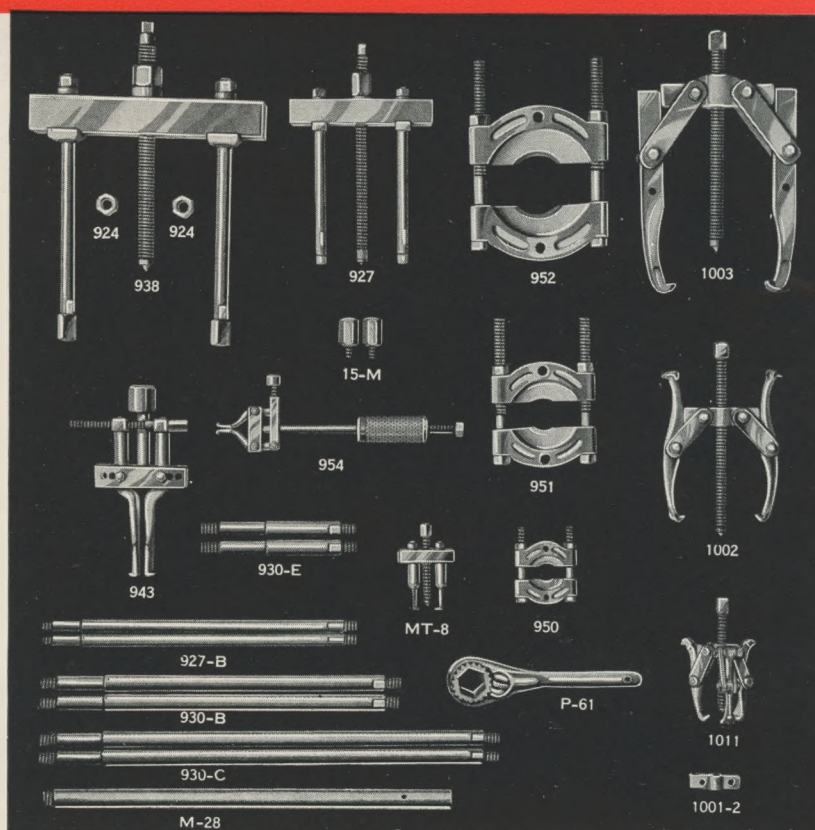
Developed for use on lighter aircraft, ideal for the average airport service shop this set will handle a majority of the maintenance operations involving the removal and replacement of bearings, gears, sleeves, collars, bearing races, etc. It will do many difficult jobs on landing gear and air frame as well as on the engines, and covers a range that adapts it to practically every make of aircraft.

All the basic tools in this set are adjustable as to size and range which makes them exceptionally versatile and universal in their application. This permits savings in time and labor and reduces the danger of ruining expensive bearings and other parts that are difficult to obtain.

Aircraft service men who know, recommend these tools with enthusiasm. Every tool is built of high alloy steel and heat-treated throughout for strength and long life.

For typical applications involving the use of these tools see the opposite page.

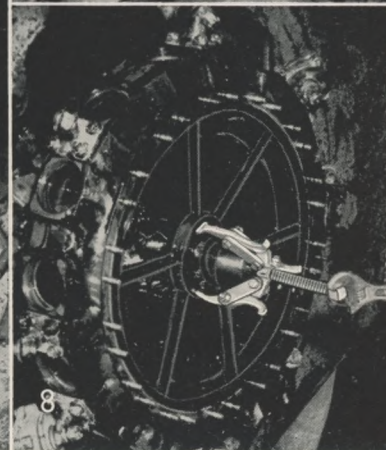
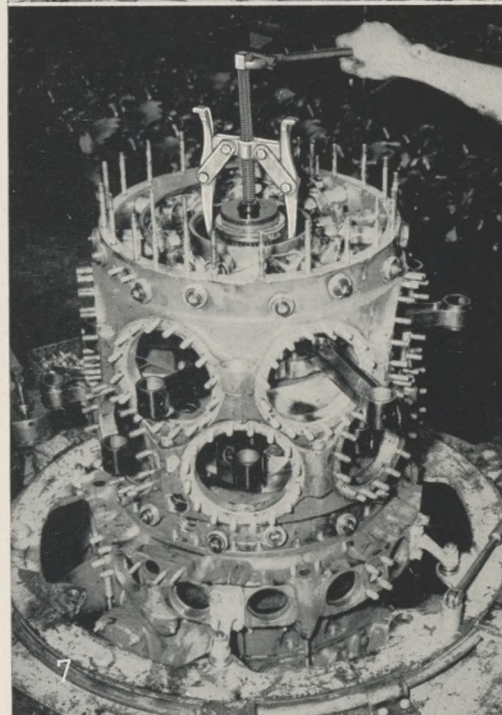
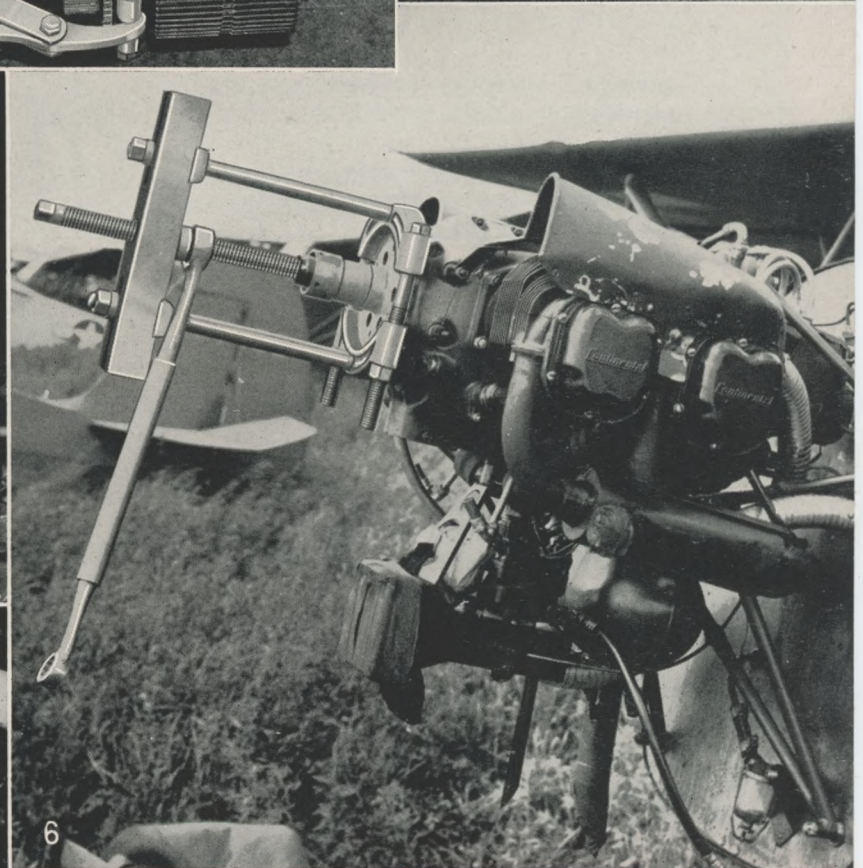
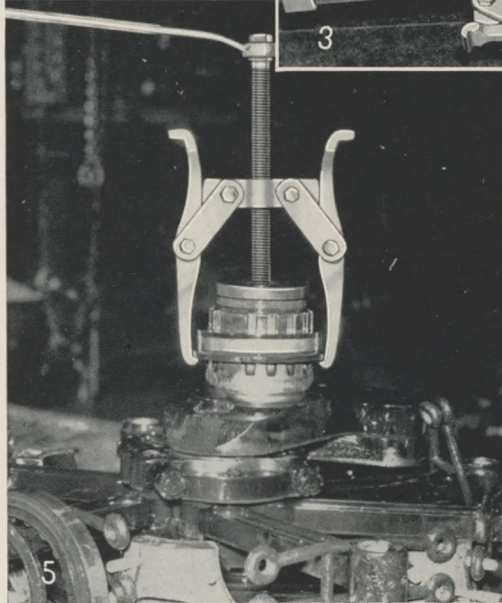
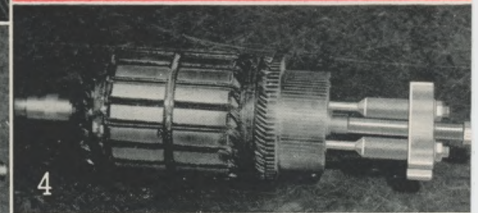
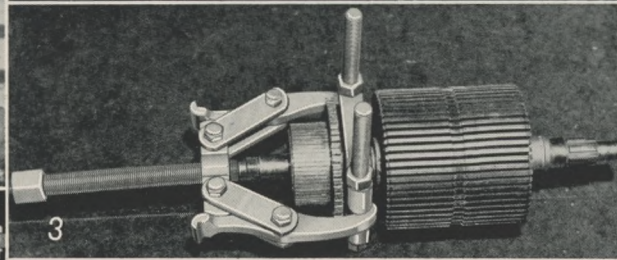
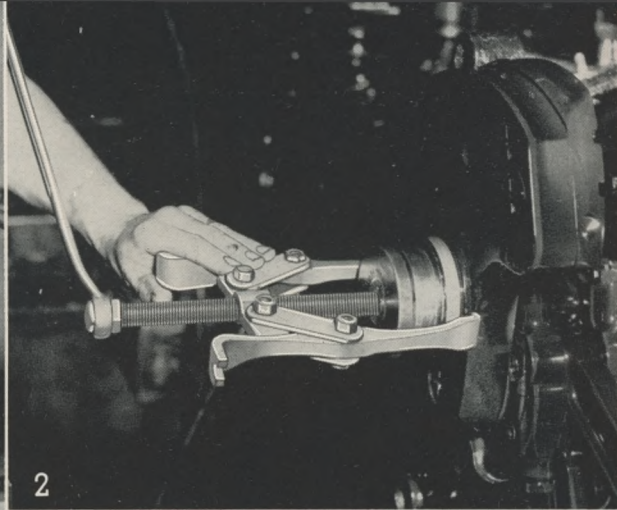
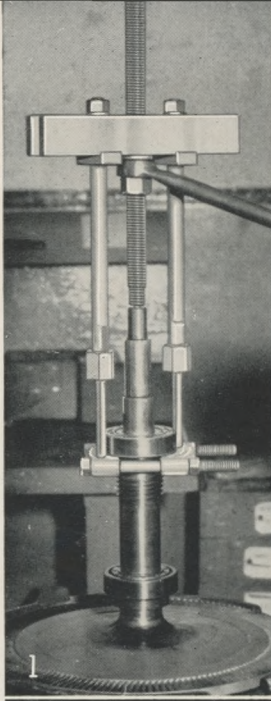
Refer to pages 4 to 13 inclusive for additional sizes of Pullers, Attachments and Adaptors to increase the range and scope of this set.



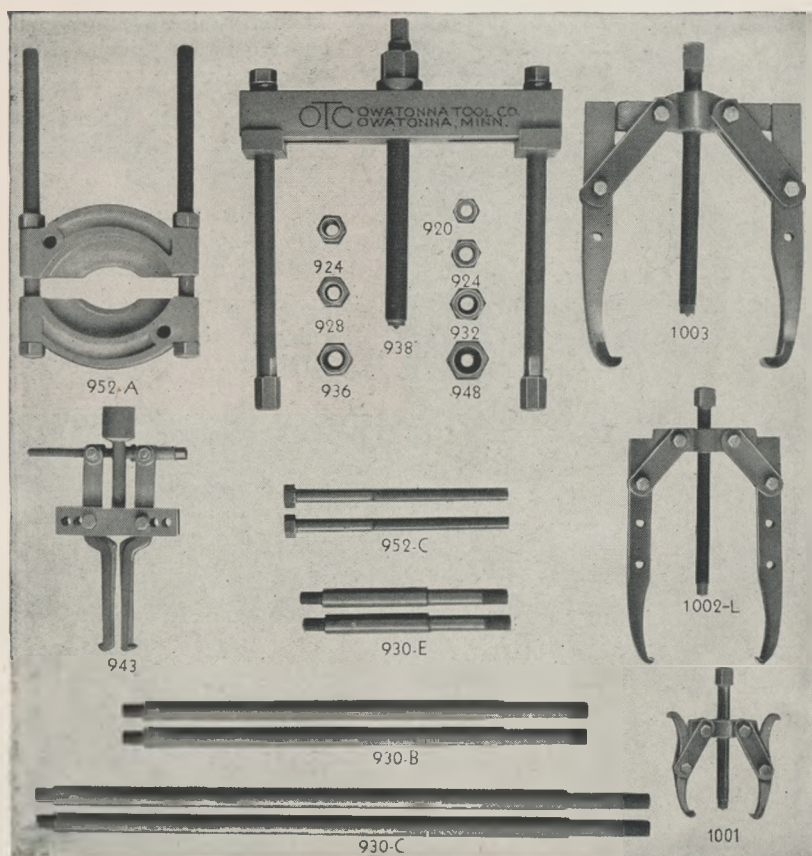
Tool No.	Description
1003	Grip-o-matic Puller
1002	Grip-o-matic Puller
1011	Grip-o-matic Puller, Triple Grip
1001-2	Two-way Forged Head for 1011
938	Push-Puller with 930-D $9\frac{1}{2}$ " legs
930-B	Legs for 938 Push-Puller $16\frac{1}{2}$ " (pair)
930-C	Legs for 938 Push-Puller $22\frac{1}{2}$ " (pair)
930-E	Legs for 938 Push-Puller $4\frac{1}{2}$ " (pair)
927	Push-Puller with 927-A $6\frac{3}{4}$ " legs
927-B	Legs for 927 Push-Puller $15\frac{3}{4}$ " (pair)
952	Bearing Pulling Attachment
951	Bearing Pulling Attachment
950	Bearing Pulling Attachment
954	Pilot Bearing Puller
943	Bearing Cup Pulling Attachment
MT-8	Special Puller
924	Threaded Adaptors $\frac{5}{8}$ "-18 x $\frac{3}{4}$ "-16 female (pair)
15-M	Adaptors $\frac{5}{8}$ "-18 female x $\frac{3}{8}$ "-16 male (pair)
P-61	Reversible Push-Puller Ratchet for 938
M-28	Tubular Handle for P-61 Ratchet
AS-20	Service Board (only) 4' x 4'. Wt. 60 lbs.
AS-21	Aviation Service Set, Tools only. Wt. 100 lbs.

TYPICAL APPLICATIONS

1. No. 927 and 950 removing ball bearing from Turbo-Super-charger shaft.
2. The No. 1002 Grip-o-matic removing the crankshaft inner race rear bearing.
3. No. 1001 Grip-o-matic with 950 Attachment pulling commutator from armature shaft.
4. Special puller MT-8 removing balance ring on generator armature.



5. The No. 1002 Grip-o-matic pulling crankshaft front bearing inner race.
6. No. 938 Push-Puller and 952 Pulling Attachment removing propeller hub.
7. The No. 1002 Grip-o-matic removing coupler gear.
8. No. 1011 removing accessory drive gear from impeller shaft.



GENERAL SERVICE SET

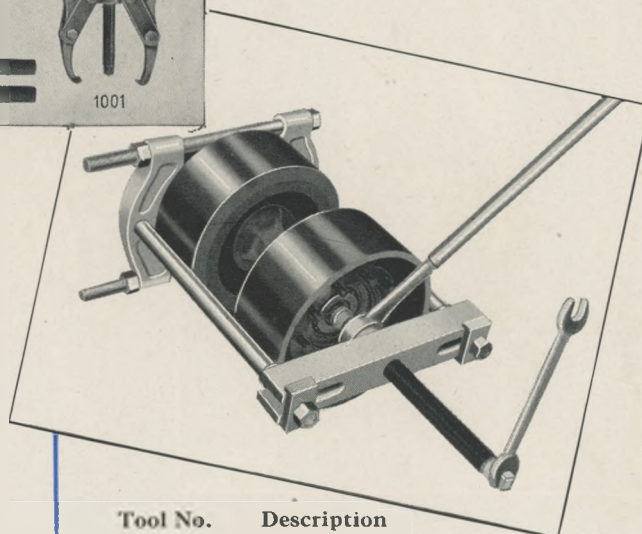
NUMBER
PE-12

This set with the addition of the No. 1003½ Grip-o-matic (page 4) and the No. 680 Sheave Puller Attachment (page 7) is recommended for servicing International Trucks.

A versatile set which was developed to provide the widest range of utility on the largest possible number of makes and models of tractors, power shovels, drag lines, road machinery, motors, trucks and all kinds of power equipment. This set will handle 90% of the jobs involving the removal and replacement of bearings, gears, pulleys, shafts, pinions, wheels and other closely fitted parts without damage to those parts and at a substantial saving in time and labor.

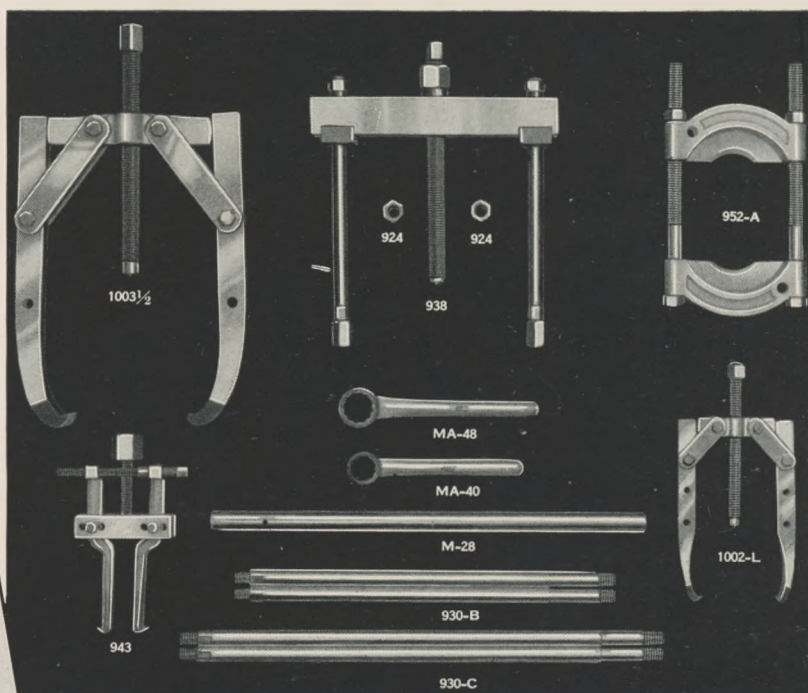
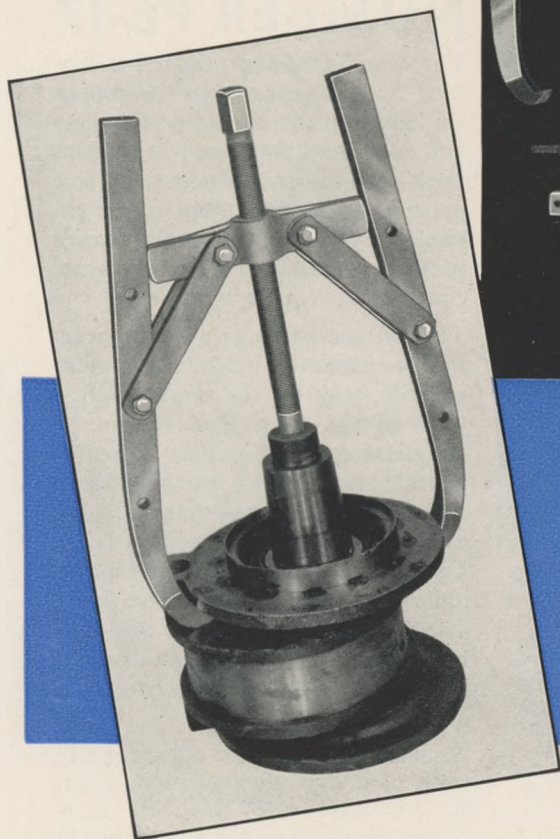
This set can be expanded in range by the addition of larger pullers listed and illustrated on preceding pages. These tools are guaranteed against obsolescence and will give years of satisfactory, uninterrupted service.

The Service Board, 3' x 4', is optional, but recommended as a part of the set as it provides a convenient place to keep the tools. Built of ¾" plywood with a heavy molding and finished in blue lacquer.



Tool No.	Description
1003	Grip-o-matic Puller
1002-L	Grip-o-matic Puller
1001	Grip-o-matic Puller
938	Push-Puller with 930-D, 9½" legs
930-B	Legs for 938 Push-Puller 16½" (Pair)
930-C	Legs for 938 Push-Puller 22½" (Pair)
930-E	Legs for 938 Push-Puller 4½" (Pair)
952-A	Bearing Pulling Attachment
952-C	Extra Short Bolts for 952-A
943	Bearing Cup Pulling Attachment
920	Threaded Adaptor ⅝"-18 x ⅝"-18 female
924	Threaded Adaptor ¾"-16 x ⅝"-18 female (Pair)
928	Threaded Adaptor ⅞"-14 x ⅝"-18 female
932	Threaded Adaptor 1"-14 x ⅝"-18 female
936	Threaded Adaptor 1⅛"-12 x ⅝"-18 female
948	Threaded Adaptor 1½"-12 x ⅝"-18 female
PE-11	Service Board (only) 3' x 4', Wt. 32 lbs.
PE-12	General Service Set, Tools only, Wt. 82 lbs.

A typical application shown below illustrates the No. 1003½ Grip-o-matic Puller removing a flange. The more pressure applied on the forcing screw, the greater the gripping power on the jaws of the puller. No clamps or other accessories are needed to hold them in place on the work.



INDUSTRIAL MAINTENANCE SET NUMBER PE-15

Tool No.	Description
1003½	Grip-o-matic Puller
1002-L	Grip-o-matic Puller
938	Push-Puller with 930-D 9½" Legs
930-B	Legs for Push-Puller 16½" (pair)
930-C	Legs for Push-Puller 22½" (pair)
952-A	Bearing Pulling Attachment
943	Bearing Cup Pulling Attachment
924	Threaded Adaptor 5/8"-18 x 3/4"-16 (pair)
MA-48	1½" Heavy Duty Box Wrench
MA-40	1¼" Heavy Duty Box Wrench
M-28	Tubular Handle for Box Wrenches
PE-16	Service Board (only). Wt. 34 lbs.
PE-15	Industrial Maintenance Set, Tools only. Wt. 93 lbs.

This industrial maintenance set is designed particularly for service on large track-type tractors, power shovels, pumps, diesel engines and other heavy machines and machine tools. It will accomplish 90% of the jobs involving the removal and replacement of gears, bearings, pulleys, wheels, pump impellers, etc.

The removal of such parts without damage often permits a saving in expensive parts and labor and eliminates delays in operations that actually pay for the tools many times over on emergency jobs alone. All of the tools in this and preceding sets have been approved by leading bearing manufacturers who recommend them for bearing removal. For detailed specifications on the individual parts comprising this set see pages 4 to 9.

The Service Board on which these tools are mounted should be purchased with the set to provide a convenient place to keep the tools. It is substantially built of 3/8" plywood with a heavy molding. Steel brackets are used to provide a permanent place for each item in the set. Size 3' x 4'.

Industrial

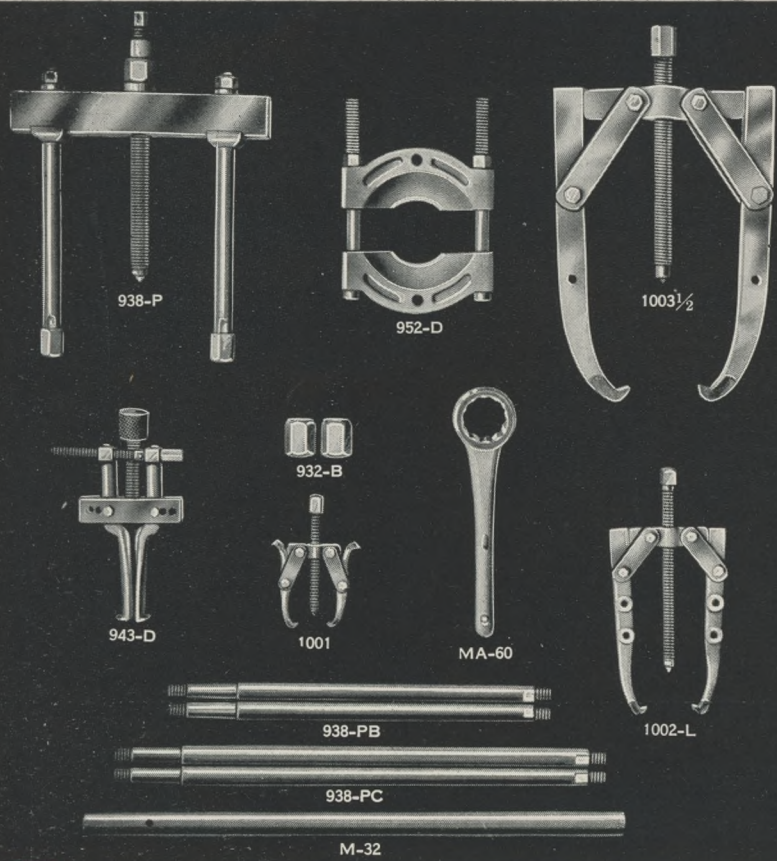
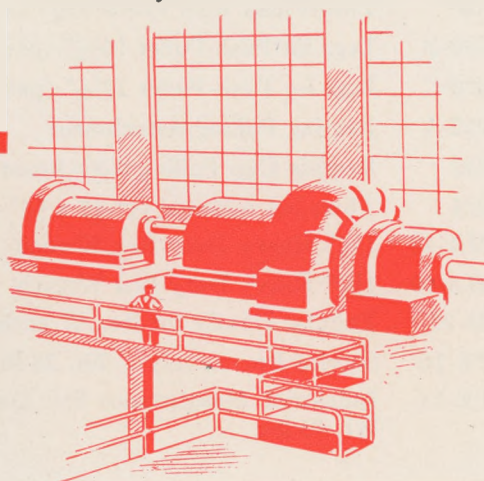
NUMBER PE-17

The ever increasing needs of industrial maintenance men prompted the addition of new sizes of pullers and combinations of pullers to meet these requirements. These new tools provide an intermediate range capable of handling the maintenance problems of smaller industrial plants, contractors, textile mills, etc.

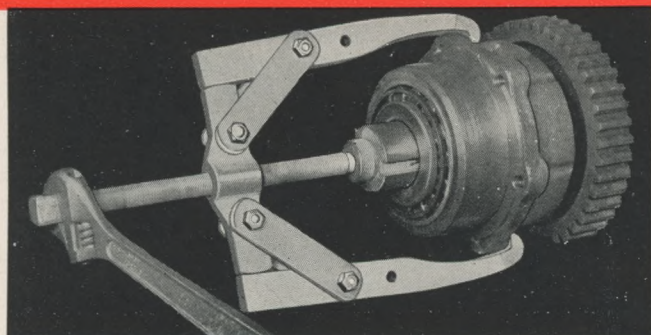
This set comprises new units covering a range of sizes heretofore covered only by the larger pulling tools in the OTC line. It can be supplemented with pullers of greater capacity as the need for them arises and still retain the interchangeability that characterizes these tools. Consult the specifications on the individual tools in this set on pages 4 to 9 inclusive, in order to determine whether the range and capacity of these tools meet your requirements.

A service board 3' x 4' substantially built of heavy plywood is optional for purchase with this set. It is recommended that the service board be purchased as a permanent place to keep the tools.

Steel brackets and hangers that will last indefinitely are provided for each tool and the board itself can be mounted conveniently on the wall of any tool crib.



Tool No.	Description
1003½	Grip-o-matic Puller
1002-L	Grip-o-matic Puller
1001	Grip-o-matic Puller
938-P	Push-Puller with 938-PA 8" Legs
938-PB	Legs for 938-P Push-Puller 18" (pair)
938-PC	Legs for 938-P Push-Puller 28" (pair)
952-D	Bearing Pulling Attachment
943-D	Bearing Cup Pulling Attachment
932-B	Threaded Adaptors 1"-14 x 1"-14 female (pair)
MA-60	Heavy Duty Box Wrench 17⅞"
M-32	Tubular Handle for MA-60 Wrench
PE-13	Service Board (only) 3' x 4'. Wt. 36 lbs.
PE-17	Maintenance Set, Tools only. Wt. 135 lbs.



MAINTENANCE SETS

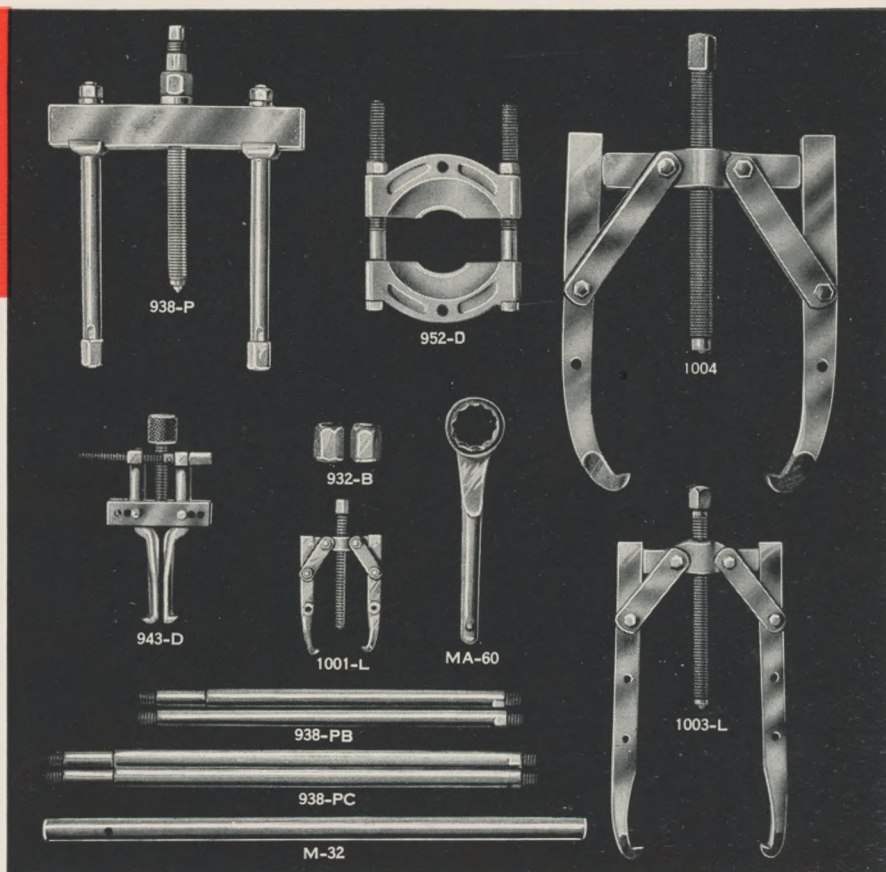
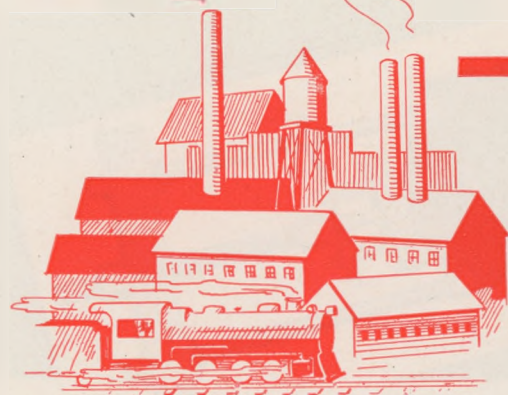
NUMBER PE-18

The maintenance set here illustrated is designed to cover a range of applications slightly larger than the set on the opposite page, but smaller than those involving the largest set No. PE-20 on the following page.

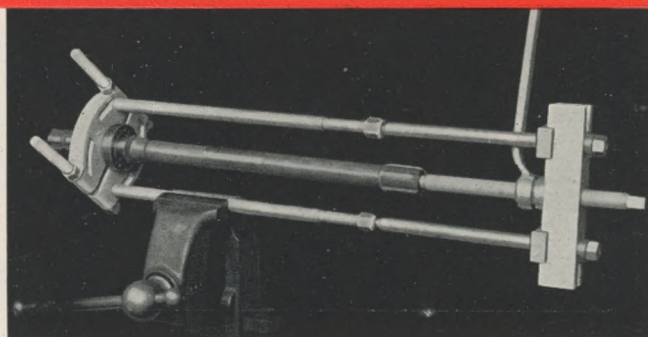
Additional new sizes of pullers were added to more completely cover all industrial maintenance problems. With their wide range of adjustments these tools are well suited to industrial applications of all kinds involving the removal and replacement of gears, bearings, pulleys, wheels, shafts, bushings, sleeves, pinions and collars within their scope. Tools of greater and lesser capacities to fit every requirement are available and this set can be supplemented with these tools as the need for them arises.

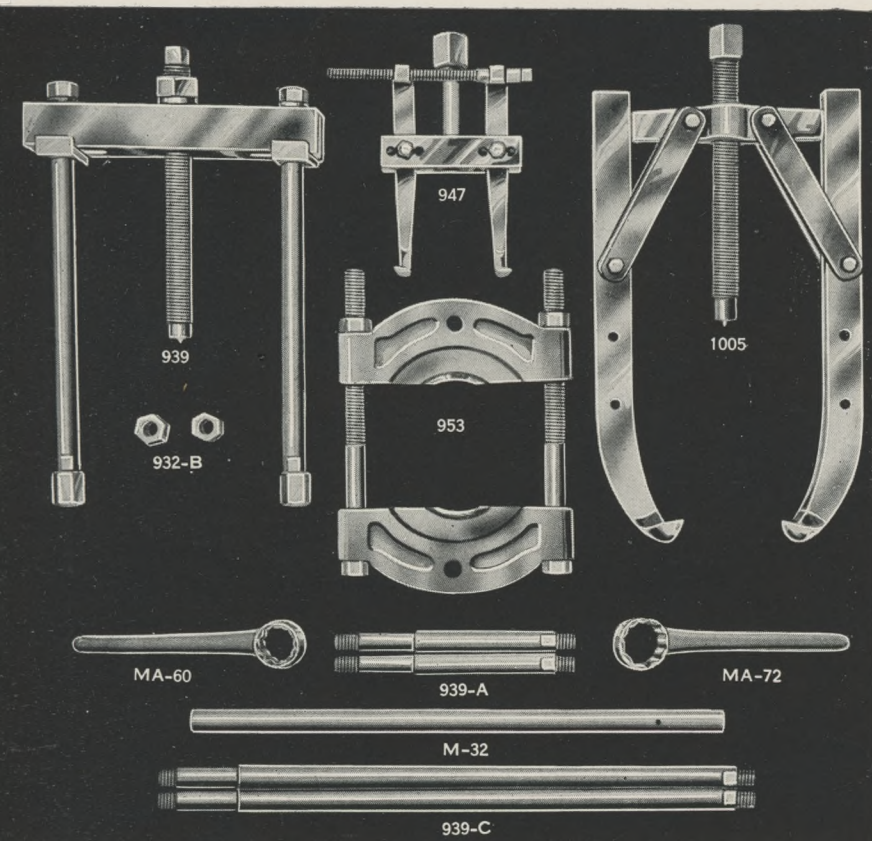
Complete specifications on Grip-o-matic Pullers, Push-Pullers and Attachments are given on pages 4 to 9. All OTC Pullers have a high degree of interchangeability to provide almost any conceivable combination.

A service board 3' x 4' is optional. It is built of plywood and contains substantial brackets and hangers to provide a permanent place to keep every tool. The purchase of this board is recommended to reduce the loss of parts.



Tool No.	Description
1004	Grip-o-matic Puller
1003-L	Grip-o-matic Puller
1001-L	Grip-o-matic Puller
938-P	Push-Puller with 938-PA 8" Legs
938-PB	Legs for 938-P Push-Puller 18" (pair)
938-PC	Legs for 938-P Push-Puller 28" (pair)
952-D	Bearing Pulling Attachment
943-D	Bearing Cup Pulling Attachment
932-B	Threaded Adaptors 1"-14 x 1"-14 female (pair)
MA-60	Heavy Duty Box Wrench 17/8"
M-32	Tubular Handle for MA-60 Wrench
PE-14	Service Board (only) 3' x 4'. Wt. 38 lbs.
PE-18	Maintenance Set, Tools only. Wt. 165 lbs.





INDUSTRIAL MAINTENANCE SET No. PE-20

Tool No.	Description
1005	Grip-o-matic Puller
939	Push-Puller with 939-B, 18" legs
939-A	Legs for Push-Puller 8" (pair)
939-C	Legs for Push-Puller 28" (pair)
932-B	Threaded Adaptors 1"-14 x 1"-14 (pair)
953	Bearing Pulling Attachment
947	Bearing Cup Pulling Attachment
MA-72	2 1/4" Heavy Duty Box Wrench
MA-60	1 7/8" Heavy Duty Box Wrench
M-32	Tubular Handle for Box Wrenches
PE-21	Service Board 4' x 4' (only). Wt. 60 lbs.
PE-20	Maintenance Set, Tools only. Wt. 216 lbs.

PULLING FLY WHEEL

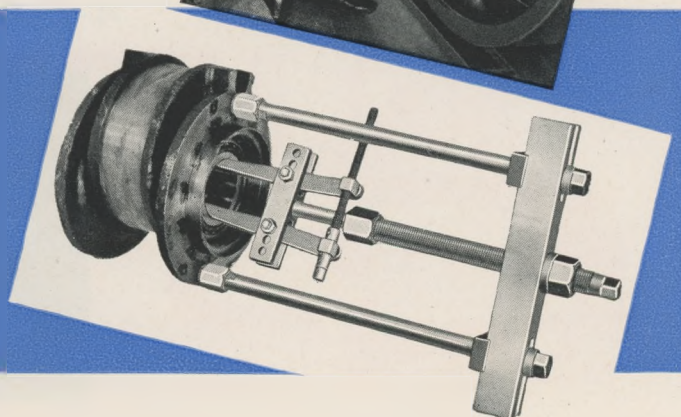
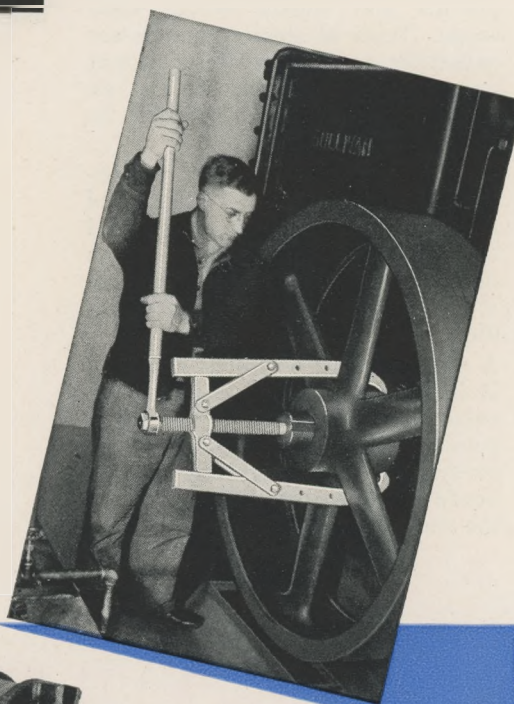
The illustration, upper right, shows the No. 1005 Grip-o-matic Puller being used to remove a large flywheel. Many maintenance operations of this kind are possible with these tools and will suggest themselves to men who are daily faced with problems of this nature.

PULLING OUTER RACE

At the right the No. 939 Push-Puller is shown in use with the No. 947 Bearing Cup Pulling Attachment removing a bearing cup. The job is quickly and easily accomplished.

A highly versatile and universal set of maintenance tools designed and built particularly for use on heavy machine tools, turbines, marine engines, mining machinery and other large equipment. Especially recommended for use in railroad shops, mills, mines, factories, shipyards, shipboard and utility plants.

The removal and replacement of large gears, bearings, wheels, pulleys often presents a serious problem and results in tying up valuable production units. With this set these jobs can be accomplished in a fraction of the time ordinarily required to do them. In every case where heavy strains are necessary, it is possible with these tools to obtain a positive, non-slipping grip. This prevents accidents, eliminates damage to expensive parts and reduces maintenance costs.

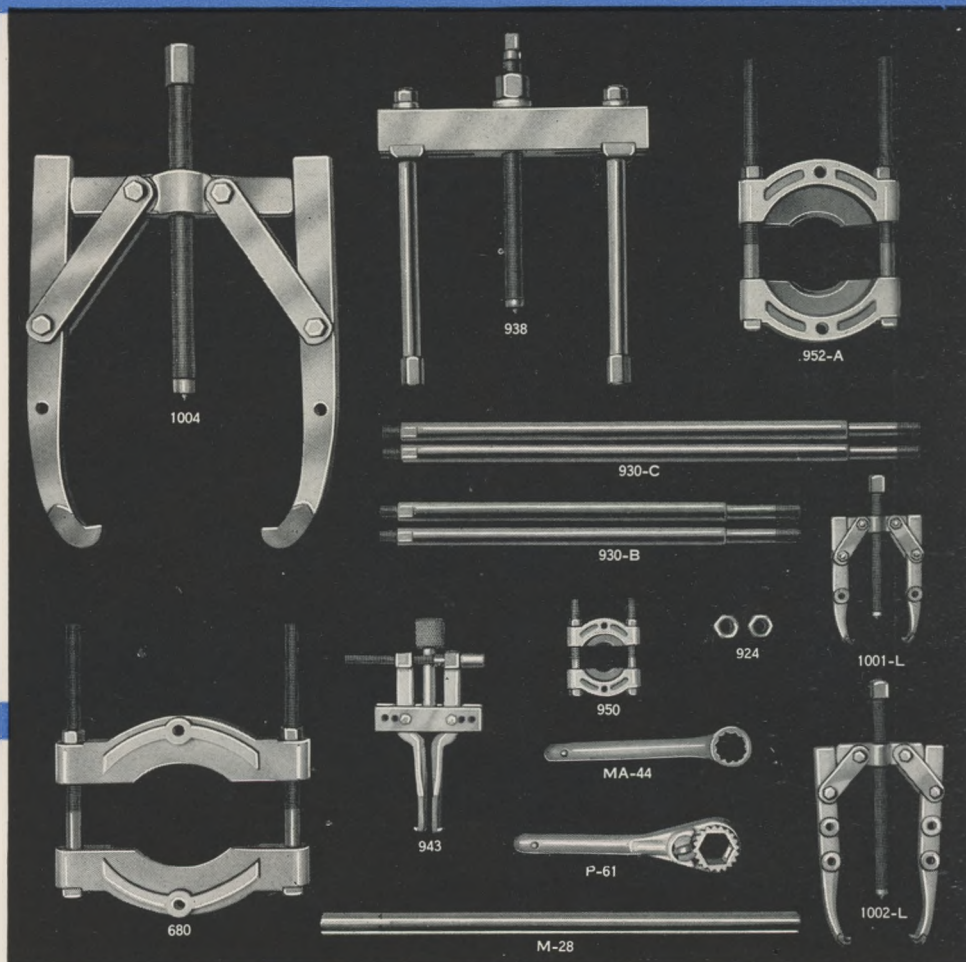




DIESEL *Service* SET

NUMBER PD-14

Diesel maintenance men who have used this set are enthusiastic about its range and utility. They will verify the fact that there is no set of tools on the market that compare with it in quality or design, or that is as universal and versatile.



Tool No.	Description
1004	Grip-o-matic Puller
1002-L	Grip-o-matic Puller
1001-L	Grip-o-matic Puller
938	Push-Puller with 930-D 9 $\frac{1}{2}$ " legs
930-B	Legs for 938 Push-Puller 16 $\frac{1}{2}$ " (pr.)
930-C	Legs for 938 Push-Puller 22 $\frac{1}{2}$ " (pr.)
952-A	Bearing Pulling Attachment
950	Bearing Pulling Attachment
943	Bearing Cup Pulling Attachment
680	Sheave Pulling Attachment
924	Threaded Adaptors $\frac{5}{8}$ "-18 x $\frac{3}{4}$ "-16 (pair)
MA-44	Box Wrench 1 $\frac{3}{8}$ "
M-28	Tubular Handle for Box Wrench
P-61	Push-Puller Reversible Ratchet
PD-13	Diesel Service Board (only). Wt. 60 lbs.
PD-14	Diesel Service Set, Tools only. Wt. 135 lbs.

The growing popularity of Diesel engines has increased the demand for a maintenance set that will handle this particular type of work. This OTC Diesel set meets the requirements of Diesel service men in railroad shops, highway shops, utilities and others. It includes three popular sizes of Grip-o-matic Pullers, one Push-Puller and the necessary attachments including a sheave pulling attachment. This makes it the most complete universal set of its kind for Diesel service and maintenance. Additional sizes of pullers can be added to increase the range of the set.

The Service Board, 4' x 4', built of $\frac{3}{4}$ " plywood with a heavy molding is substantially built and designed as a permanent place to keep these tools. It is equipped with steel brackets so that each tool has its own place on the board. Finished in an attractive blue lacquer. The above set can be purchased with or without the board. The use of the board, however, reduces the danger of losing tools and at the same time provides a convenient place to keep them.

FOR ALL TRACTORS



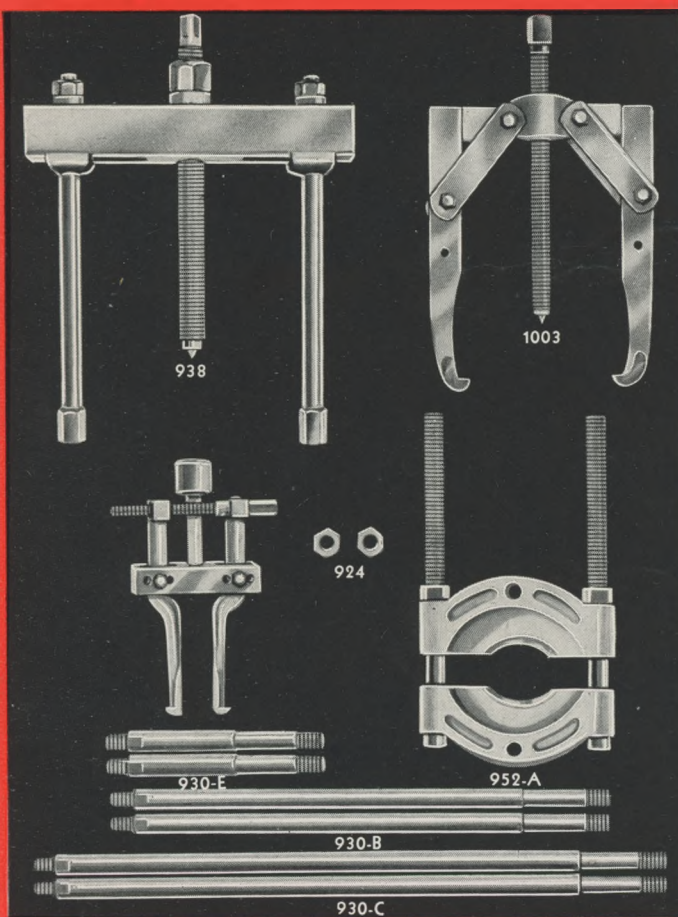
Pulling System

BASIC TRACTOR SET

Each tractor set is made up of eight basic pulling tools as illustrated at the left, plus additional items which are special for each make of tractor. The PE-8 Basic Puller set supplemented by any one of the special sets listed at the left below combines to make a complete tractor set for any one of nine makes of tractors.

The OTC Pulling System in this manner provides universal adaptability, reduces the number of tools required for good service, and effects a considerable saving in money. It enables every tractor dealer to obtain at a minimum cost the special tools he requires to service any make of tractor which he may take in on trade.

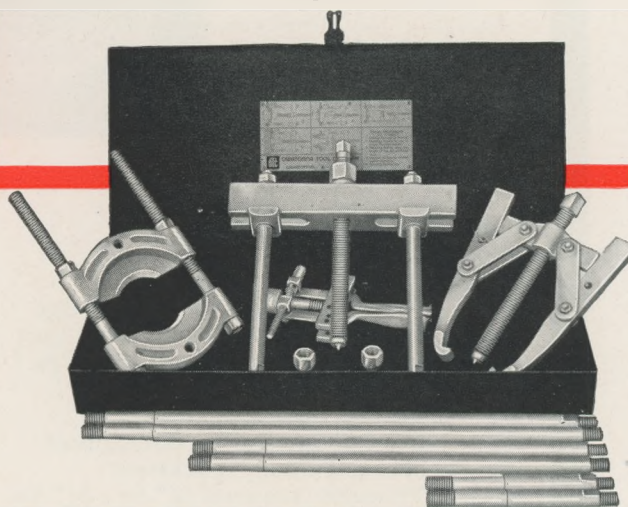
See Bulletin T-45 for complete details.



BASIC SET Number PE-8

THE PE-8 BASIC SET ADDED TO THE SPECIAL SETS LISTED BELOW MAKES COMPLETE TRACTOR SETS

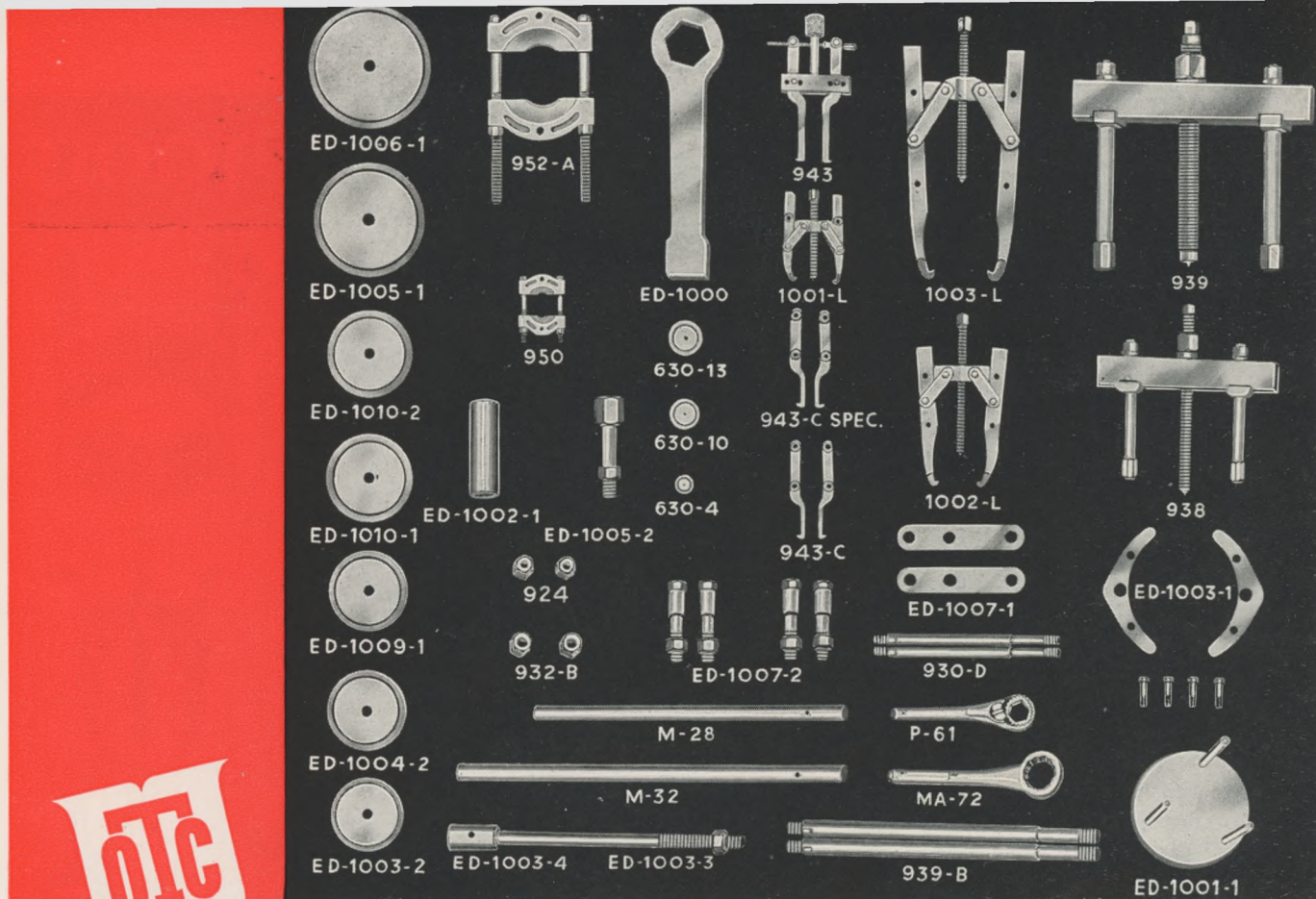
Special Set. No.	Wt.	Plus PE-8 Makes Complete Set	For
AC-17	26 lbs.	No. AC-612	Allis-Chalmers
AV-8	17 lbs.	No. AV-16	Avery
C-13	32 lbs.	No. C-631	J. I. Case
CT-11	16 lbs.	No. CT-641	Caterpillar
CL-16	56 lbs.	No. CL-665	Cletrac
JD-12	13 lbs.	No. JD-16	John Deere
FF-15	28 lbs.	No. FF-22	Ford-Ferguson
MD-27	62 lbs.	No. MD-35	McCormick-Deering
MM-10	23 lbs.	No. MM-18	Minneapolis-Moline
OR-12	27 lbs.	No. OR-17	Oliver



A metal case is provided for those who wish to keep the PE-8 Basic Set intact as a separate unit. It provides a place to keep these tools and reduces the danger of losing parts. This box is 27½" x 11¾" x 2½".

No. PE-8C—Metal Case (only). Wt. 14½ lbs.

No. PE-8S—PE-8 Set in Metal Case. Wt. 80 lbs.



Special PULLERS for LeTOURNEAU EQUIPMENT

Using the OTC Pulling System as a basic unit and working in cooperation with LeTourneau engineers and service men, special adaptors and attachments

were designed to provide a complete puller set for use on the "Tournapull" and other LeTourneau equipment.

The tools comprising this set are designed to remove and replace many of the bearings, pinions and other close-fitting parts found on LeTourneau and other heavy equipment. With these tools it is possible to remove and replace these parts without damage and at a substantial saving in time and labor.

For a special service bulletin illustrating the use of these tools ask for LeTourneau Bulletin No. O-189.

Part No.	Description
939	Push Puller with 939-A, 8" legs
939-B	Legs for 939 Push-Puller 18" (pair)
938	Push-Puller with 930-E, 4 1/2" legs
930-D	Legs for 938 Push-Puller, 9 1/2" (pair)
1003-L	Grip-o-matic Puller with long arms
1002-L	Grip-o-matic Puller with long arms
1001-L	Grip-o-matic Puller with long arms
950	Bearing Pulling Attachment
952-A	Bearing Pulling Attachment
943	Bearing Cup Pulling Attachment
943-C (Spec.)	Pin Arms for 943 Attachment (pair)
943-C	Short Arms for 943 Cup Attachment (pair)
924	Threaded Adaptors 5/8"-18 x 3/4"-16 (pair)
932-B	Threaded Adaptors 1"-14 x 1"-14 (pair)
630-13	Step Plate Adaptor
630-10	Step Plate Adaptor
630-4	Step Plate Adaptor
P-61	Reversible Push Puller Ratchet

No Service Board available for this set

Part No.	Description
MA-72	2 1/4" Heavy Duty Box Wrench
M-32	Tubular Handle for MA-72, 30"
M-28	Tubular Handle for P-61, 28"
ED-1000	Striking Wrench
ED-1000-1	Pusher-Plate with 3 Pins
ED-1002-1	Adaptor 1 7/8" x 1 1/2"-12 female
ED-1003-1	Half-Moon Adaptors (pair)
ED-1003-2	Bearing Remover Adaptor 5 1/8"
ED-1003-3	Adaptor Shank 20" long
ED-1003-4	Connector 1"-14 x 1 1/2"-12 fe male
ED-1004-2	Bearing Installation Adaptor 5 27/32"
ED-1005-1	Bearing Removal Plate 8 3/16"
ED-1005-2	Reducing Adaptor 1 1/2"-12 x 1"-14
ED-1006-1	Bearing Installation Plate 8 3/16"
ED-1007-1	Adaptor Straps (pair)
ED-1007-2	Special Bolts and Sleeves (2 pair)
ED-1009-1	Bearing Removal Plate 5 7/8"
ED-1010-1	Bearing Installation Plate 6 5/8"
ED-1010-2	Bearing Removal Plate 6 5/8"
LTC-38	Service Set Complete. Wt. 285 lbs.



ESSENTIAL *Service* TOOLS

FOR ALLIS CHALMERS TRACTORS

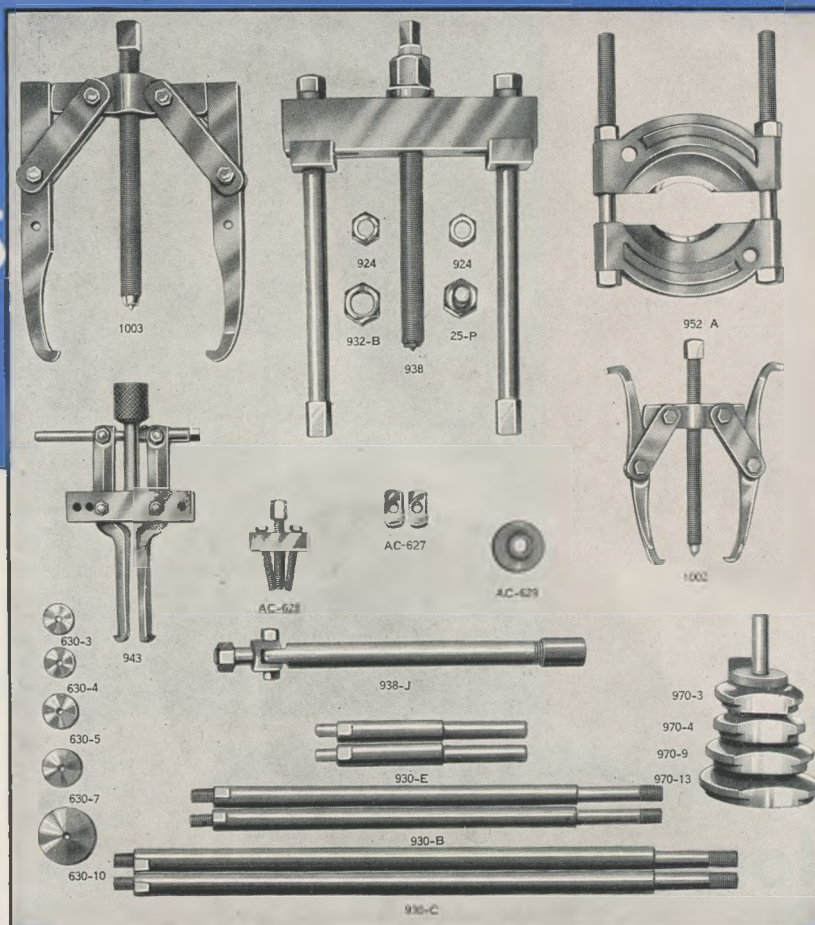
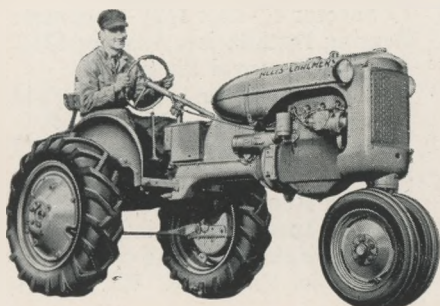
No. AC-612

FACTORY APPROVED

The maintenance set illustrated at the right was developed particularly for servicing Allis-Chalmers farm tractors and implements and is approved and recommended by the Allis-Chalmers Manufacturing Co. This set includes OTC basic pulling tools, together with several special attachments and adaptors especially designed and built for use on A-C tractors. In addition, Allis-Chalmers dealers may, with the addition of other OTC tools use this set for servicing other makes of tractors taken in on trade.

The attractive Service Board should be purchased with the set as it serves as an advertisement of your facilities and at the same time provides a substantial and permanent place to keep the tools.

For detailed information on service applications involving the use of these tools on A-C tractors write or ask for Bulletin No. AC-45.



Tool No.	Description
1003	Grip-o-matic Puller
1002	Grip-o-matic Puller
938	Push-Puller with 930-D 9 1/2" Legs
930-B	Legs for Push-Puller 16 1/2" (pair)
930-C	Legs for Push-Puller 22 1/2" (pair)
930-E	Legs for Push-Puller 4 1/2" (pair)
952-A	Bearing Pulling Attachment
943	Bearing Cup Pulling Attachment
938-J	Swivel Sleeve Pulling Attachment
970-3	Sleeve Puller Adaptor Plate 3 1/4"
970-4	Sleeve Puller Adaptor Plate 3 3/8"
970-9	Sleeve Puller Adaptor Plate 4"
970-13	Sleeve Puller Adaptor Plate 4 1/2"
AC-627	Brake Drum Leg Ends (pair)
932-B	Threaded Adaptor 1"-14 x 1"-14
924	Threaded Adaptor 3/8"-18 x 3/4"-16 (pair)
630-3	Step Plate Adaptor 1 1/4" x 1"
630-4	Step Plate Adaptor 1 3/8" x 1 1/8"
630-5	Step Plate Adaptor 1 5/8" x 1 1/4"
630-7	Step Plate Adaptor 1 7/8" x 1 1/2"
630-10	Step Plate Adaptor 2 3/8" x 1 7/8"
25-P	Male Plug Adaptor 3/4"-10 x 5/8"-18
AC-628	Pump Flange Puller
AC-629	Impeller Puller Collar
*AC-631	Cam Shaft Bushing Driver
AC	Service Board 3' x 4' (only). Wt. 36 lbs.
AC-612	Service Set, Tools only. Wt. 90 lbs.

*Included in set but not illustrated.

PE-8 Basic Set plus AC-17 Special Set=AC-612
Complete Allis-Chalmers Tractor Set



ALLIS-CHALMERS *Special* TOOLS



HYDRAULIC PUMP SET

NO. AC-7

A complete, compact, extremely handy set for servicing Allis-Chalmers hydraulic pumps on Models "B" and "C" tractors. This is an inexpensive set that every A-C dealer should have in his shop. It consists of seven essential tools every one of which is needed to service these pumps.

Tools included in the set are AC-32 Discharge Valve Replacing Punch, AC-33 Discharge Removing Punch, AC-35 Valve Ball Seating Punch, AC-36 Intake Valve Seat Puller, AC-37 Intake Valve Seat Pulling Cup, W-6 $\frac{3}{16}$ " Set Screw Wrench, and W-8 $\frac{1}{4}$ " Set Screw Wrench.

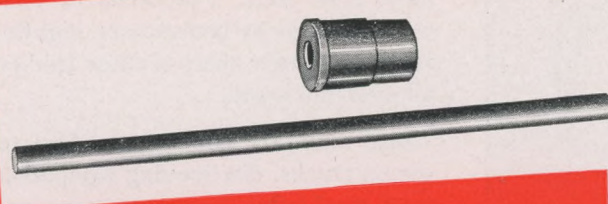
No. AC-7—Hydraulic Pump Service Set. Wt. 1 lb.

CAMSHAFT BUSHING DRIVER

NO. AC-631

A special tool designed to remove and replace the Camshaft Bushings on the "B", "B-15", "C", "RC", "WC", "WF" and "W-25" Allis-Chalmers tractors. This tool is needed every time the engine on these tractors is overhauled. It is included in the AC-612 Set illustrated on the opposite page.

No. AC-631 Camshaft Bushing Driver, Wt. $4\frac{1}{4}$ lbs.

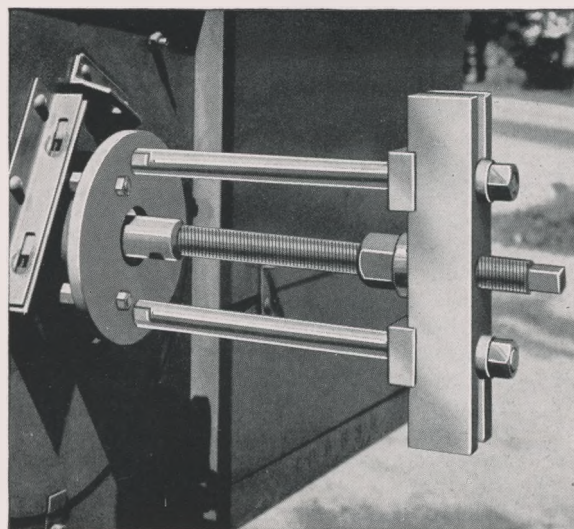


MODEL 60 HARVESTER BEARING PULLING ATTACHMENT No. AC-635

This attachment is designed and built with the approval of the Allis-Chalmers Company and is recommended to all dealers servicing Harvesters. It consists of a pulling plate with three studs and is used with the OTC Push-Puller No. 938 with 930-D $9\frac{1}{2}$ " legs as illustrated in the photograph at the right. This tool removes the Model 60 cylinder bearing housing quickly and easier than by any other method.

The No. 938 Push-Puller and No. 930-D $9\frac{1}{2}$ " legs are included in the AC-612 Essential Service tool set and dealers already having this set need only purchase the attachment No. AC-635.

No. AC-635—Cylinder Bearing Housing Attachment. Wt. 6 lbs.





ESSENTIAL *Service* TOOLS FOR CATERPILLAR TRACTOR

No. CT-641

FACTORY APPROVED

Approved and recommended by the Caterpillar Tractor Company and developed particularly for servicing Caterpillar tractors. Caterpillar service men will find this set the most universal and versatile set of tools they have ever used. Thousands of these sets are in use by contractors, highway shops and other users of these tractors all over the world.

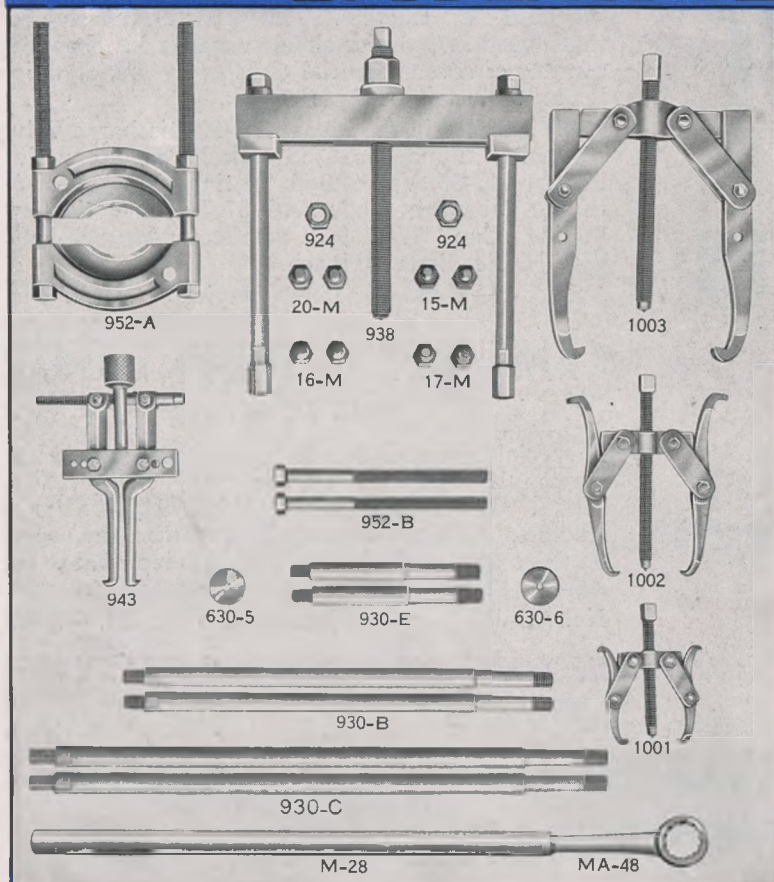
These tools are equally practical for use on trucks, dirt moving equipment, road machinery, power shovels, etc., and in addition, are just as efficient on other makes and models of tractors that may be taken in on trade.

Every tool comprising this set is a part of the OTC Pulling System and will not become obsolete even after years of service. No other tools can equal them for the fast, efficient, safe removal of bearings, gears, sprockets, pulleys, wheels, etc.

For more detailed information on specific service jobs involving these tools ask or write for Caterpillar Bulletin No. CT-25.



The Service Board on which these tools are mounted is built of $\frac{3}{8}$ " plywood with a heavy molding and attractively finished in blue. Steel brackets are provided as a permanent fixture for each tool in the set and reduces the danger of losing parts of the set. It is recommended that the Service Board be purchased with the set.



Tool No.	Description
1003	Grip-o-matic Puller
1002	Grip-o-matic Puller
1001	Grip-o-matic Puller
938	Push-Puller with 930-D $9\frac{1}{2}$ " legs
930-B	Legs for Push-Puller $16\frac{1}{2}$ " (pair)
930-C	Legs for Push-Pullers, $22\frac{1}{2}$ " (pair)
930-E	Legs for Push-Puller $4\frac{1}{2}$ " (pair)
952-A	Bearing Pulling Attachment
952-B	Forcing Bolts for 952-A, $\frac{5}{8}$ "-18 (pair)
943	Bearing Cup Pulling Attachment
924	Threaded Adaptors $\frac{5}{8}$ "-18 x $\frac{3}{4}$ "-16 female (pair)
20-M	Adaptor $\frac{5}{8}$ "-11 male x $\frac{5}{8}$ "-18 female (pair)
15-M	Adaptor $\frac{3}{8}$ "-16 male x $\frac{5}{8}$ "-18 female (pair)
16-M	Adaptor $\frac{1}{2}$ "-20 male x $\frac{5}{8}$ "-18 female (pair)
17-M	Adaptor $\frac{1}{2}$ "-13 male x $\frac{5}{8}$ "-18 female (pair)
630-5	Step Plate Adaptor $1\frac{5}{8}$ " x $1\frac{1}{4}$ "
630-6	Step Plate Adaptor $1\frac{3}{4}$ " x $1\frac{3}{8}$ "
MA-48	Box Wrench $1\frac{1}{2}$ " Twelve Point
M-28	Tubular Handle for MA-48 Box Wrench
CT-21	Caterpillar Service Board (only) 3' x 4'. Wt. 36 lbs.
CT-641	Caterpillar Service Set, Tools only. Wt. 95 lbs.



ESSENTIAL *Service* TOOLS

FOR CASE TRACTORS

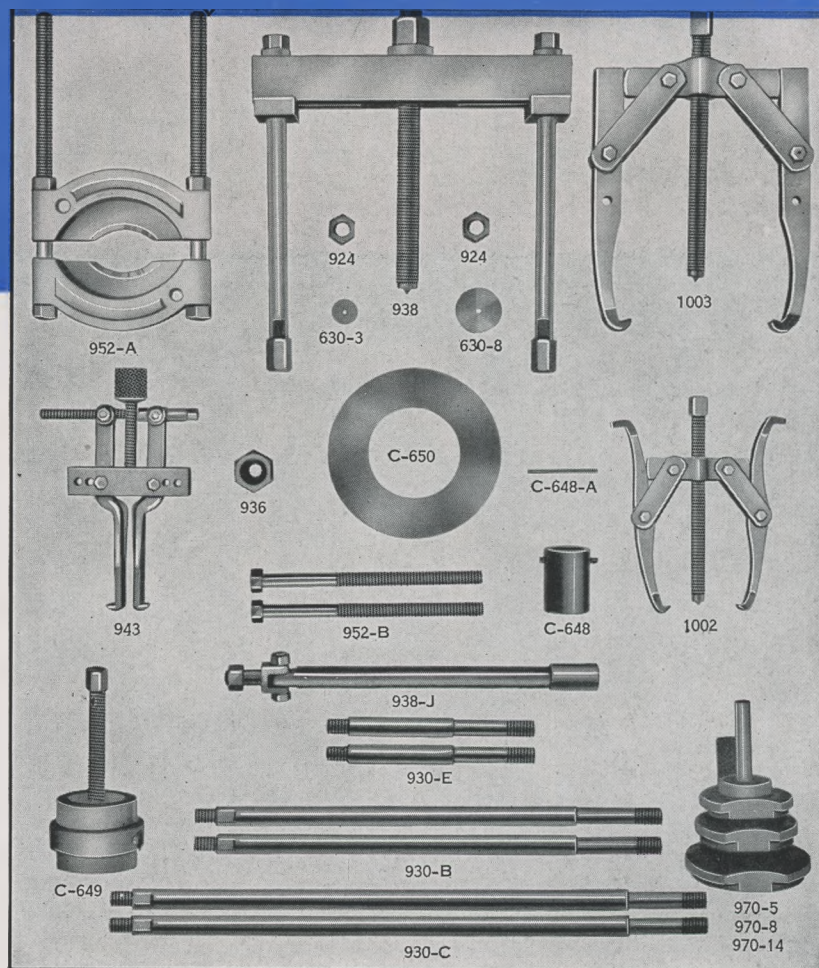
No. C-637

A complete set of pullers developed especially for and in cooperation with the J. I. Case Company. This set is FACTORY APPROVED and hundreds of them are already in service in Case service shops throughout the country.

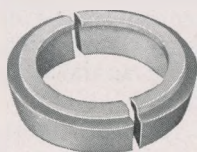
The basic OTC Pullers are augmented in this set by several special items designed especially for Case work. Basic pullers are universal and can be used to service and overhaul trade-ins regardless of make or model. They will not become obsolete with each change of model and will give years of satisfactory service. In addition, they work equally well on all types of farm implements. The Service Board on which the tools are mounted is 3' x 4', finished attractively in blue and serves as an advertisement of your facilities as well as providing a permanent place to keep these tools.

The No. 954 Pilot Bearing Puller (see page 13) is also recommended for use on Case tractors and should be purchased with set No. C-637.

For more detailed information on specific service jobs possible with this set ask or write for Case Service Bulletin No. C-45.

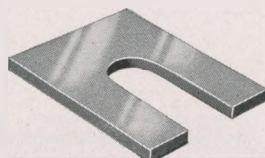


Tool No.	Description
1003	Grip-o-matic Puller
1002	Grip-o-matic Puller
938	Push-Puller with 930-D 9 $\frac{1}{2}$ " Legs
930-B	Legs for Push-Puller 16 $\frac{1}{2}$ " (pair)
930-C	Legs for Push-Puller 22 $\frac{1}{2}$ " (pair)
930-E	Legs for Push-Puller 4 $\frac{1}{2}$ " (pair)
952-A	Bearing Pulling Attachment
952-B	Forcing Bolts for 952-A Attachment 5 $\frac{5}{8}$ "-18 (pair)
938-J	Swivel Sleeve Pulling Attachment
943	Bearing Cup Pulling Attachment
C-648	Special Adaptor 1" female
C-648-A	Extra Pin for C-648 for use on Model "S"
C-649	First Reduction Shaft Bearing Puller
C-650	Governor Gear Pulling Plate
970-5	Sleeve Puller Adaptor Plate 3 $\frac{1}{2}$ "
970-8	Sleeve Puller Adaptor Plate 3 $\frac{7}{8}$ "
970-14	Sleeve Puller Adaptor Plate 4 $\frac{5}{8}$ "
936	Threaded Adaptor 5 $\frac{5}{8}$ "-18 x 1 $\frac{1}{8}$ "-12 female
924	Threaded Adaptor 5 $\frac{5}{8}$ "-18 x 3 $\frac{3}{4}$ "-16 female (pair)
630-3	Step Plate Adaptor 1" x 1 $\frac{1}{4}$ "
630-8	Step Plate Adaptor 1 $\frac{5}{8}$ " x 2"
CA-21	Service Board (only) 3' x 4'. Wt. 36 lbs.
C-637	Case Service Set, Tools only. Wt. 94 lbs.



Special Collet for "SC" Tractor

This special collet is used with the C-649 Case puller to remove the first reduction shaft bearing on the "SC" tractor. No. C-649-A—Collet (only). Weight 3 $\frac{3}{4}$ lbs.



Belt Pulley Plate

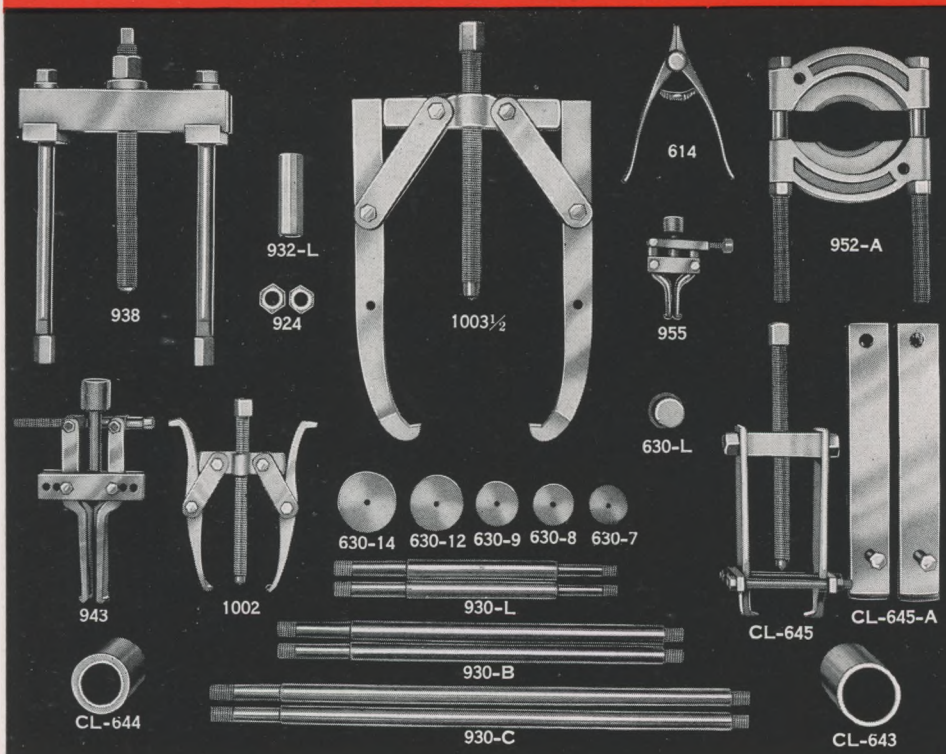
This attachment is used with the 1003 $\frac{1}{2}$ Grip-o-matic Puller to remove the belt pulley on the Model "S" tractor. See page 4 for 1003 $\frac{1}{2}$ Puller. No. C-652—Belt Pulley Plate. Wt. 1 $\frac{3}{4}$ lbs.



ESSENTIAL *Service* TOOLS

FOR Cletrac TRACTORS

No. CL-665



Tool No.	Description
1003 1/2	Grip-o-matic Puller
*1003	Grip-o-matic Puller
1002	Grip-o-matic Puller
938	Push-Puller with 930-D 9 1/2" Legs
930-B	Legs for Push-Puller 16 1/4" (pair)
930-C	Legs for Push-Puller 22 1/2" (pair)
*930-E	Legs for Push-Puller 4 1/2" (pair)
930-L	Special Legs for Push-Puller 9 1/2" (pair)
932-L	Threaded Adaptor 1"-14 x 1"-20 female
952-A	Bearing Pulling Attachment
943	Bearing Cup Pulling Attachment
924	Threaded Adaptors 5/8"-18 x 3/4"-16 female (pair)
955	Pilot Bearing Pulling Attachment
630-7	Step Plate Adaptor 1 7/8" x 1 1/2"
630-8	Step Plate Adaptor 2" x 1 5/8"
630-9	Step Plate Adaptor 2 1/8" x 1 3/4"
630-12	Step Plate Adaptor 2 5/8" x 2 1/8"
630-14	Step Plate Adaptor 2 7/8" x 2 3/8"
630-L	Special Step Plate Adaptor
614	Snap Ring Plier
CL-643	Adaptor for Replacing EH, A and B Oil Seal
CL-644	Adaptor for Replacing HG Oil Seal
CL-645	Special Bearing Puller
CL-645-A	Special Jaws for Puller CL-645
CL-24	Service Board (only) 3' x 4'. Wt. 38 lbs.
CL-665	Cletrac Service Set, Tools only. Wt. 90 lbs.

*Included in set but not shown.

The puller set illustrated on the left was developed in cooperation with the Cleveland Tractor Company and is recommended to all Cletrac dealers and users for service on Cletrac tractors.

These tools will remove and replace most of the bearings, gears, sprockets, wheels and other tightly fitted parts without damage and at a substantial saving in time and labor. They will pay for themselves many times over in parts saved alone, and in addition will reduce the danger of forced "down time" on valuable equipment.

These tools work equally well on other makes and models of tractors, trucks, road machinery, power shovels and other equipment and will give years of satisfactory service.

For detailed information on specific service applications involving tools in this set ask or write for Cletrac Bulletin No. CL-6.

The Service Board on which these tools are mounted is substantially built as a permanent place to keep these tools. We recommend that this board be purchased with the tools.

PE-8 Basic Set + Plus CL-16 Special Set = CL-665 Set.



ESSENTIAL *Service* TOOLS



No. JD-16

The Service Board on which these tools are mounted is substantially built as a permanent and attractive place to keep these tools. It is recommended that a board be purchased with each set to serve as an advertisement of your service facilities and reduce the danger of losing the tools.

FOR **JOHN DEERE** TRACTORS

FACTORY APPROVED

A complete set of pullers for removing and replacing gears, bearings, pinions, wheels, pulleys, etc., on John Deere tractors and implements. Recommended for all John Deere dealers by the John Deere Tractor Co., this set will accomplish a majority of the service problems found on these tractors and in addition will

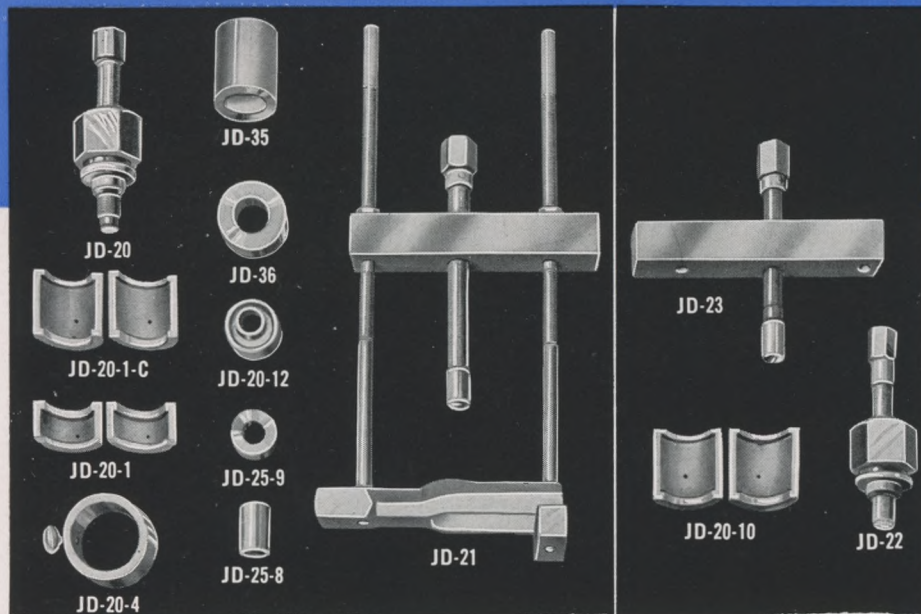
operate just as successfully on trade-ins regardless of make or model. Thousands of these sets are already in use and testify to its popularity with the trade. For complete details on John Deere Tractor tools write or ask for Bulletin JD-17.

Tool No.	Description
1001	Grip-o-matic Puller
1003	Grip-o-matic Puller
938	Push-Puller with 930-D, 9 1/2" legs
930-B	Legs for 938 Push-Puller 16 1/2" (pair)
930-C	Legs for Push-Puller 22 1/2" (pair)
930-E	Legs for Push-Puller 4 1/2" (pair)
952-A	Bearing Pulling Attachment
932-A	Adaptor 3/4"-16 x 1"-14 female
948-A	Adaptor 1"-14 x 1 1/2"-12 female
924	Adaptors 5/8"-18 x 3/4"-16 female (pair)
943	Bearing Cup Pulling Attachment

Tool No.	Description
943-A1	Long Jaws for No. 943 Bearing Cup Puller
943-C1	Short Jaws for No. 943 Bearing Cup Puller
930-J	Turned Leg-ends to pull Clutch Drive Disc
630-4	Step Plate 1 1/8" x 1 3/8"
630-7	Step Plate 1 1/2" x 1 7/8"
630-9	Step Plate 1 3/4" x 2 1/8"
630-13	Step Plate 2 1/4" x 2 3/4"
630-17	Step Plate 3" x 3 1/2"
JD-11	Service Board (only) 3' x 3'. Wt. 24 lbs.
JD-16	John Deere Service Set, Tools only.
	Wt. 80 lbs. Bulletin JD-17 (Revised).

PE-8 Basic Set + JD-12 Special Set = JD-16 Set.

JOHN DEERE GEAR PULLER AND DRIVER TOOL FOR GOVERNOR & FANSHAFT



NO. JD-40

A complete set of tools that eliminates the delay and trouble normally encountered in servicing the John Deere Governor and Fanshaft. The set of tools illustrated at the left can be utilized to remove the magneto drive flange, the governor gears, the fanshaft bevel gear and fanshaft bevel pinion, and inner race of the fanshaft rear bearing. It will also replace the governor gears.

The group at the left in the picture above consisting of JD-20, JD-20-1C, JD-20-1, JD-20-4, JD-35, JD-36, JD-20-12, JD-25-9, JD-25-8 and JD-21 works on Models "G", "GM" and late "A" and "B".

The group at the right in the above picture consisting of tools JD-23, JD-20-10 and JD-22 is required in addition to the tools at the left to service Model "H" tractors.

See Bulletin JD-17 (Revised) for further details and instructions.

These tools make possible field removal and installation of these parts and are essential equipment for every John Deere dealer.

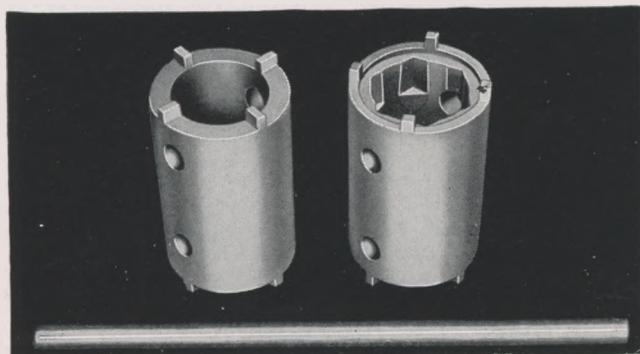
No. JD-40—Governor Shaft Puller Set for Models "A", "B", "H", "G" and "GM" complete. Wt. 22 $\frac{3}{4}$ lbs.

No. JD-18—Governor Shaft Puller Set for Models "A", "B", "G" and "GM". Wt. 16 $\frac{1}{4}$ lbs.

No. JD-19—Governor Shaft Puller Set for Model "H". Wt. 7 lbs.

Countershaft Lock Nut Wrench

NUMBER JD-631



A double-end wrench especially designed for removing and replacing the Countershaft Lock Nut on the Model "A" and "B" six speed tractors. It operates also on the sliding gear shaft nut.

This tool is an essential one for all John Deere dealers since it operates on all "A" tractors from No. 499000 and all "B" tractors from No. B96000. It will save a great deal of time and will pay for itself on a few jobs.

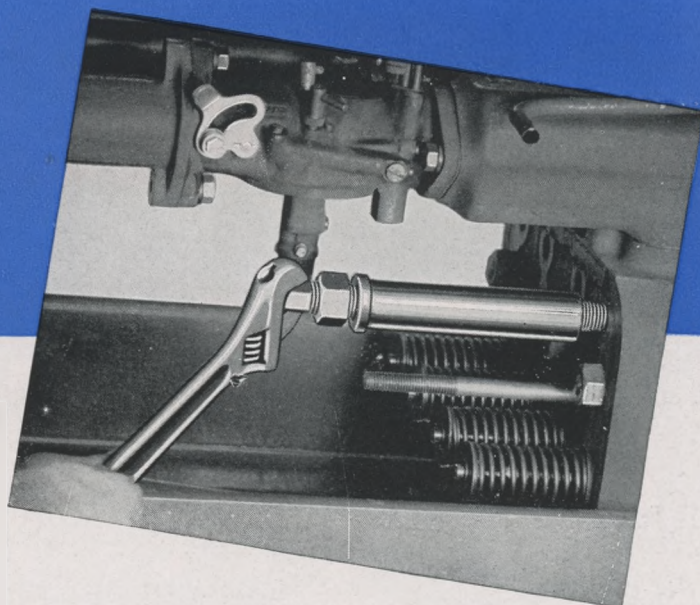
No. JD-631—Countershaft Lock Nut Wrench. Weight 3 $\frac{1}{2}$ lbs.

Special TOOLS

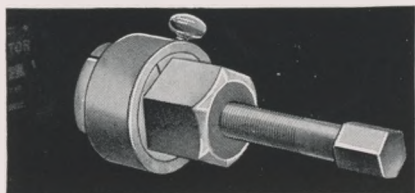
PUSH ROD SLEEVE PULLER AND DRIVER



A special tool set designed and built especially for use on John Deere tractors. With this inexpensive set of tools it is possible to remove and replace the push rod sleeves on John Deere Models "A" and "B" without removing the cylinder head. To insert the puller screw, first remove the tappet cover case, tappet lever, shaft assembly and push rods.



No. 644—Push Rod Sleeve Puller. Wt. 2 lbs.
No. 645—Push Rod Sleeve Replacer. Wt. 1/2 lb.
No. 646—Puller and Replacer Set. Wt. 2 1/2 lbs.



SPECIAL PULLER

Two special collets for use with the JD-40 set (opposite page) are available to remove the left hand camshaft bearing on the Model "A" and the right hand countershaft bearing on the Model "B".

Parts No. JD-20 and JD-20-4 must be used with these collets.

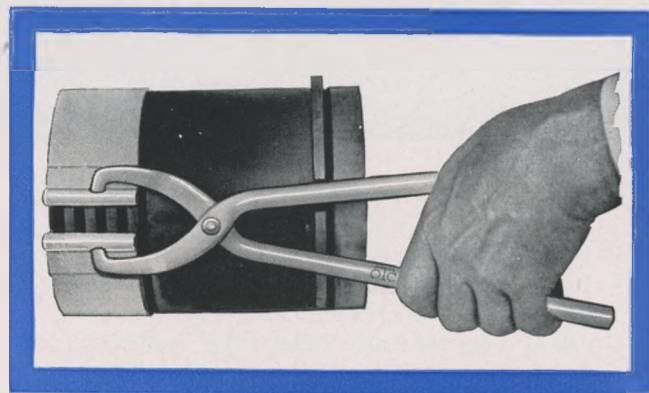
No. JD-622—Collet for LH Camshaft Bearing. Wt. 3/4 lbs.

No. JD-623—Collet for RH Countershaft Bearing. Wt. 1 1/4 lbs.

IMPROVED RING COMPRESSOR NO. JD-869

Consisting of five flexible bands and one pair of compressor tongs this tool is highly recommended for work on John Deere tractors. It will handle rings from 3 5/16" to 6 3/4" and consequently will work on a majority of tractor pistons. Bands are built of flexible material 2 1/8" wide which easily conforms to the contour of the piston, and are crimped to prevent them from entering the bore. Includes bands JD-869-C, JD-869-D, JD-869-E, JD-869-F, JD-869-G.

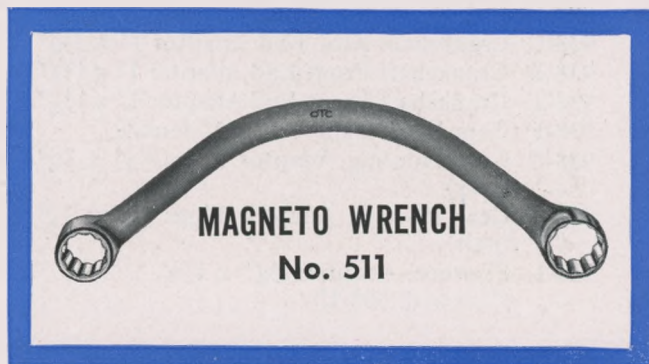
No. JD-869—Ring Compressor. Wt. 2 3/4 lbs.



JOHN DEERE MAGNETO WRENCH NUMBER 511

A special box wrench built especially for use in removing and installing John Deere magnetos and which simplifies this job a great deal. This wrench has 12 point openings 3/16" and 5/8", is drop-forged of alloy steel and will give years of satisfactory service. It can be used on many other jobs on tractors and farm implements also.

No. 511—John Deere Magneto Wrench. Wt. 7 oz.

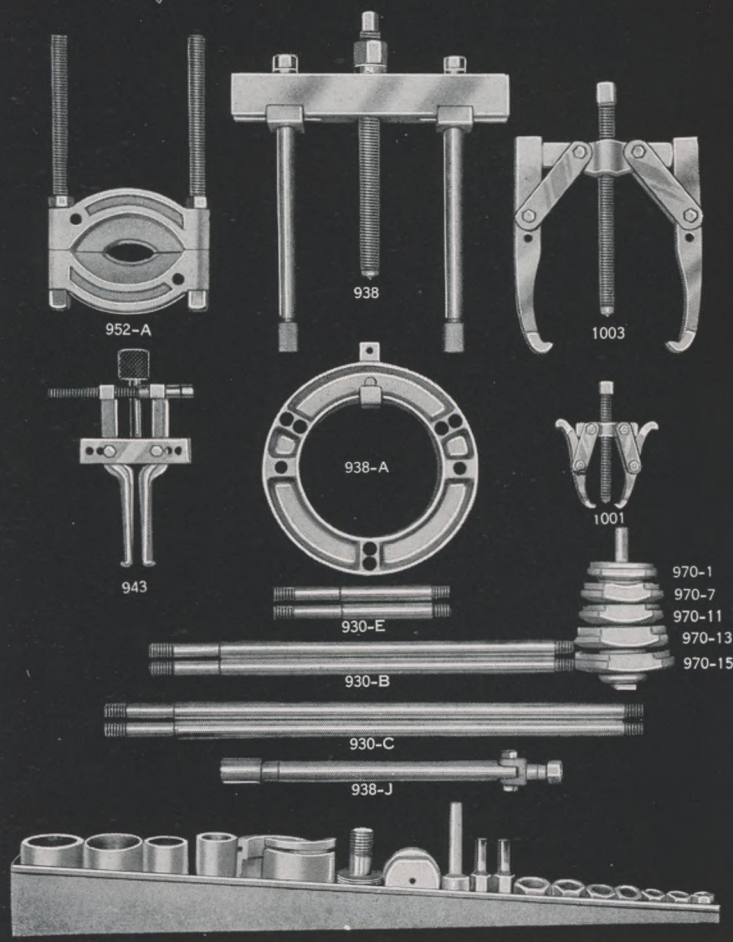




ESSENTIAL *Service* TOOLS

FOR McCormick- Deering TRACTORS

**No. MD-35
FACTORY APPROVED**



The removal and replacement of pinions, shafts, main bearings, timing gears, flywheels, ball races and other parts on McCormick-Deering tractors is accomplished easily and quickly with the MD-35 set as illustrated. This set is built around the basic pulling tools of the OTC Pulling System and augmented by special attachments and adaptors designed and built especially for McCormick-Deering service. Every tool in the set has been tested and tried over a period of years and found to be satisfactory by hundreds of McCormick-Deering dealers throughout the United States.

The Service Board is provided as a permanent and attractive place to keep these tools.

For more detailed information on the use of these tools, write for International Bulletins No. MD-44 and 6B-44.

Tool No. Description

1003	Grip-o-matic Puller
1001	Grip-o-matic Puller
938	Push-Puller with 930-D $9\frac{1}{2}$ " legs
930-B	Legs for Push-Puller $16\frac{1}{2}$ " (pair)
930-C	Legs for Push-Puller $22\frac{1}{2}$ " (pair)
930-E	Legs for Push-Puller $4\frac{1}{2}$ " (pair)
938-A	Flywheel Pulling Attachment
938-B	Crankshaft Rear End Adaptor $1"$ x $2\frac{5}{8}"$
938-C	Crankshaft Rear End Adaptor $1"$ x $2\frac{1}{4}"$
938-D	Crankshaft Front End Adaptor $1"$ x $1\frac{3}{4}"$
938-E	Crankshaft Front End Adaptor $1"$ x $1\frac{1}{2}"$
938-F	Camshaft Adaptor $1"$ x $1"$ female
938-G	Gear Housing Adaptor Plugs $\frac{5}{8}"$ x $\frac{1}{2}"$ (pair)
938-H	Gear Housing Adaptor Plugs $\frac{5}{8}"$ x $\frac{5}{8}"$ (pair)
938-I	Flywheel Adaptor $2\frac{1}{4}"$ x $1\frac{1}{8}"$ (Use with 938-C)

Tool No. Description

938-J	Swivel Sleeve Puller Attachment
938-K	Spline Shaft Bearing Race Collet
938-L	Flywheel Adaptor Plate $2\frac{7}{8}"$ OD
938-M	Flywheel Adaptor Plate $2\frac{5}{8}"$ OD
938-N	Flywheel Key Plate
943	Bearing Cup Pulling Attachment
952-A	Bearing Pulling Attachment
970-1	Sleeve Puller Adaptor Plate $3"$
970-4H	Sleeve Puller Adaptor Plate $3\frac{3}{8}"$
970-7	Sleeve Puller Adaptor Plate $3\frac{3}{4}"$
970-8M	Sleeve Puller Adaptor Plate $3\frac{7}{8}"$
970-11	Sleeve Puller Adaptor Plate $4\frac{1}{4}"$
970-13	Sleeve Puller Adaptor Plate $4\frac{1}{2}"$
970-15	Sleeve Puller Adaptor Plate $4\frac{3}{4}"$
MD-7	Threaded Adaptor Set $\frac{5}{8}"$, $\frac{3}{4}"$ (2), $\frac{7}{8}"$, $1"$, $1\frac{1}{8}"$, $1\frac{1}{4}"$
MD	Service Board (only) $3'$ x $4'$. Wt. 38 lbs.
MD-35	McCormick-Deering Service Set, Tools only. Wt. 132 lbs.

MD-35 Basic Set + MD-27 Special Set = MD-35 Set

Special McCORMICK-DEERING TOOLS



**TRUCK AND
TRACTOR SLEEVE
PULLING SETS**

MD-956 Pilot Bearing Puller

This unit is designed and built especially to remove the flywheel pilot bearing on McCormick-Deering International tractors and trucks. It is close coupled so that it can be operated with the engine in the chassis. The tool is adjustable to a capacity from $\frac{3}{8}$ " to 2" and will pull any pilot bearing within that range.

No. MD-956—Pilot Bearing Puller. Wt. 3 lbs.

Diesel Ring Compressor HC-686

Built especially for use on International "14" and "18" Diesel industrial tractor engines. The connecting rod with piston attached is clamped in a vise with brass jaws. The ring compressor is then assembled over the rings and the two halves pressed together until the clips snap in place. Approved and recommended by International Harvester Company.

No. HC-686—Diesel 14 and 18 Ring Compressor.

Wt. 3 lbs.

Heavy Duty Spanner Wrench

NO. 885

Especially well suited for work on International industrial tractors, this tool is used for turning turret adjusting nuts, packing gland nuts, etc. It is quickly adjusted to any size nut within its capacity of $1\frac{1}{2}$ " to 4". It is 19" long, drop-forged from high alloy steel and rugged enough to withstand years of service.

No. 885—Spanner Wrench. Wt. 3 lbs.

Impulse Coupling Puller MT-50

A well built tool that makes play out of the job of pulling the Impulse Coupling on McCormick-Deering H-1, H-4, F-4 and F-6 Magnetos.

No. MT-50—Impulse Coupling Puller. Wt. $\frac{1}{2}$ lb.

"H" TRANSMISSION SHAFT PILOT

BEARING PULLER No. JD-30

A special tool built to remove the Farmall "H" Transmission Shaft Pilot Bearing No. 43356D quickly and easily. Will remove inner race also if only this race is left on the shaft. This tool is made up of parts JD-22, JD-20-4 and JD-20-13.

No. JD-20-13—Split Collet (only). Wt. 1 lb.

No. JD-30—"H" Bearing Puller complete. Wt. $3\frac{1}{2}$ lbs.

The following combinations of the No. 970 Sleeve Puller, Page 46, and adaptor plate sizes are especially recommended to International - McCormick - Deering dealers for removing Cylinder Sleeves:

Set No.	Description
HC-12	Sleeve Puller for Truck and Tractor engines includes Puller No. 970 plus 11 Adaptor Plates, 970-1, 970-4, 970-4B, 970-5, 970-5C, 970-6, 970-7, 970-11, 970-13, 970-15, 970-17. Wt. 43 lbs.
HC-6	Tractor Sleeve Puller Set includes No. 970 Puller plus Adaptor Plates 970-1, 970-7, 970-11, 970-13, 970-15. Wt. 31 lbs.
HC-10	Truck Sleeve Puller Set includes No. 970 Puller plus Adaptor Plates 970-4, 970-4B, 970-5, 970-5C, 970-6, 970-7, 970-11, 970-13, 970-15. Wt. 38 lbs.

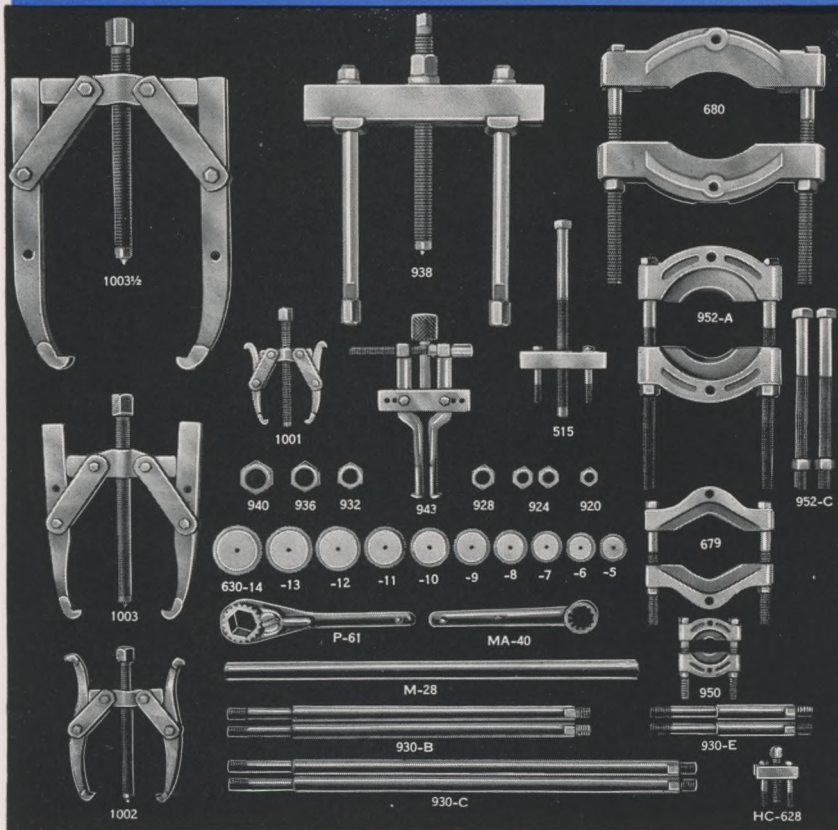


International Truck SERVICE TOOL SET

NO. IHC-37 Factory Approved

The set illustrated at the left constitutes a complete set of pullers for International Trucks. The tools comprising this set were selected for their universal adaptability and versatility. They will handle a majority of the service jobs on International Trucks involving the removing and replacing of bearings, gears, shafts, pulleys, sheaves, pinions and other close fitting parts. In addition, they will do these same jobs on practically any other make of truck which may be taken in on trade.

The tools in this set were tested and selected with the cooperation of International Harvester Co. engineers. For complete details and action photos see International Truck Manual No. 3.



Tool No.	Description
1001	Grip-o-matic Puller
1002	Grip-o-matic Puller
1003	Grip-o-matic Puller
1003½	Grip-o-matic Puller
938	Push-Puller with 930-D 9½" legs
930-B	Legs for Push-Puller 16½" (pair)
930-C	Legs for Push-Puller 22½" (pair)
930-D	Legs for Push-Puller 4½" (pair)
952-A	Bearing Pulling Attachment
952-C	Extra Bolts for 952-A (pair)
950	Bearing Pulling Attachment
943	Bearing Cup Pulling Attachment
940	Threaded Adaptor 1¼"-12 x ⅝"-18
936	Threaded Adaptor 1⅛"-12 x ⅝"-18
932	Threaded Adaptor 1"-14 x ⅝"-18
928	Threaded Adaptor ⅞"-14 x ⅝"-18
924	Threaded Adaptor ¾"-16 x ⅝"-18 (pair)
920	Threaded Adaptor ⅝"-18 x ⅝"-18
680	Sheave Pulling Attachment

Tool No.	Description
679	Sheave Pulling Attachment
630-5	Step Plate Adaptor 1⅝" x 1¼"
630-6	Step Plate Adaptor 1¾" x 1⅜"
630-7	Step Plate Adaptor 1⅞" x 1½"
630-8	Step Plate Adaptor 2" x 1⅝"
630-9	Step Plate Adaptor 2⅛" x 1¾"
630-10	Step Plate Adaptor 2⅜" x 1⅞"
630-11	Step Plate Adaptor 2½" x 2"
630-12	Step Plate Adaptor 2⅝" x 2⅛"
630-13	Step Plate Adaptor 2¾" x 2¼"
630-14	Step Plate Adaptor 2⅞" x 2⅜"
515	Cross Bar Puller
P-61	Reversible Push-Puller Ratchet
M-28	Tubular Handle 24" long
MA-40	Heavy Duty Box Wrench 1¼"
HC-628	Pump Hub Puller
IHC-36	Service Board (only), 4' x 4'
IHC-37	International Truck Set (Tools only), Wt. 160 lbs.



ESSENTIAL

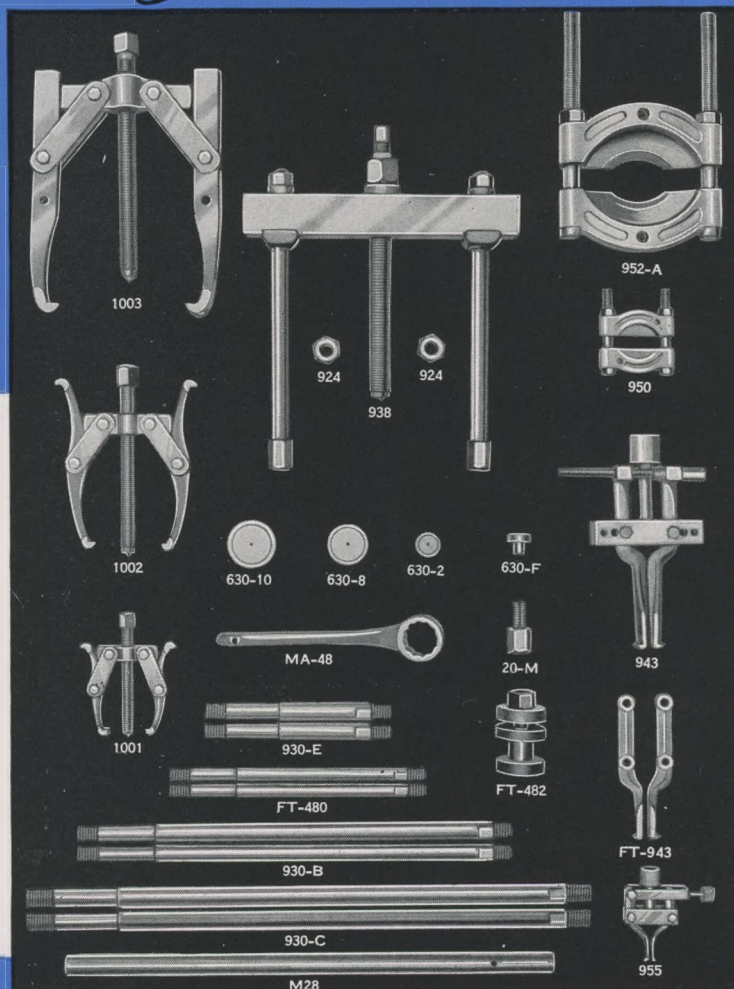
For

Ford Tractor

FERGUSON SYSTEM

No. FF-22

A compact, universal set of tools developed especially for use on Ford-Ferguson tractors and implements. This set is made up of basic pullers from the OTC Pulling System plus several special items designed to do particular jobs on this tractor. For the removal of bearings, gears, pinions, shafts, etc., there is no other set as versatile on the market. In addition to handling practically all the service jobs on Ford tractors this set works equally well on other makes and models which may be taken in on trade. These tools are portable and can be used in emergency field service as well as in the shop; they will pay for themselves many times over in parts, time and labor saved. Other Ford special tools on pages 78 to 80. *This set is to be obtained through authorized Ferguson distributors who sell them only to Authorized Dealers thoroughly trained in giving proper service.*



Tool No.	Description
1003	Grip-o-matic Puller
1002	Grip-o-matic Puller
1001	Grip-o-matic Puller
938	Push-Puller with 930-D 9 $\frac{1}{2}$ " legs
930-B	Legs for Push-Puller 16 $\frac{1}{2}$ " (pair)
930-C	Legs for Push-Puller 22 $\frac{1}{2}$ " (pair)
930-E	Legs for Push-Puller 4 $\frac{1}{2}$ " (pair)
952-A	Bearing Pulling Attachment
950	Bearing Pulling Attachment
943	Bearing Cup Pulling Attachment
FT-943	Special Jaws for 943 Attachment
FT-480	Legs for Push-Puller Special (pair)
FT-482	Drive Pinion Bearing Attachment
955	Pilot Bearing Pulling Attachment

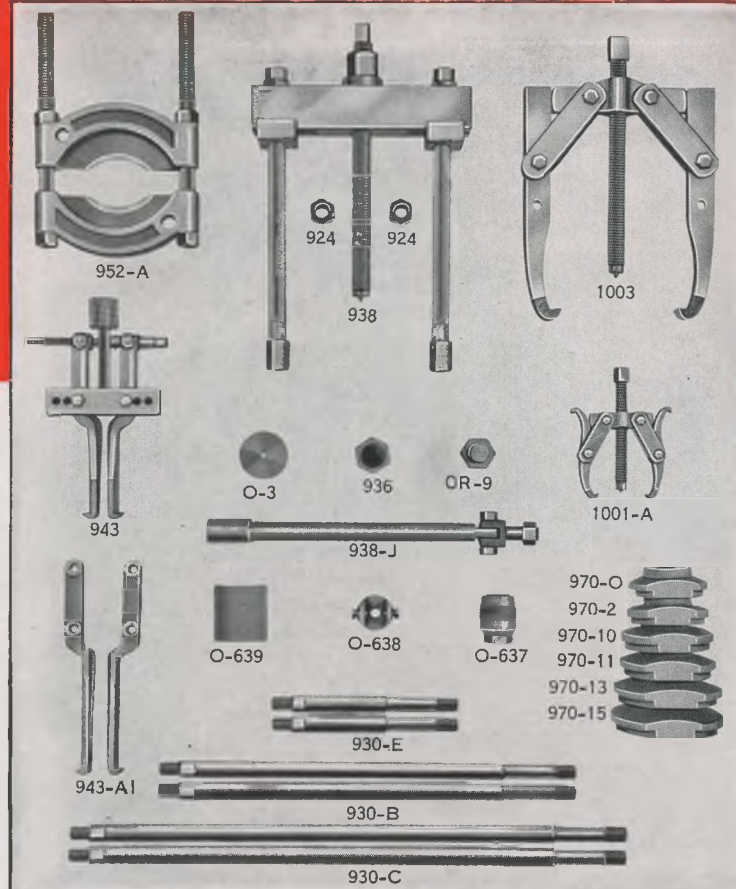
Tool No.	Description
924	Threaded Adaptor $\frac{5}{8}$ " x $\frac{3}{4}$ "-16 female (pair)
630-2	Step Plate Adaptor 1 $\frac{1}{8}$ " x $\frac{7}{8}$ "
630-8	Step Plate Adaptor 2" x 1 $\frac{5}{8}$ "
630-10	Step Plate Adaptor 2 $\frac{3}{8}$ " x 1 $\frac{7}{8}$ "
630-F	Special Step Plate Adaptor
20-M	Adaptor $\frac{5}{8}$ "-11 male x $\frac{5}{8}$ "-18 female
MA-48	Box Wrench 1 $\frac{1}{2}$ " opening
M-28	Tubular Handle for Box Wrench
FF-20	Service Board (only) 3' x 4'. Wt. 36 lbs.
FF-22	Ford-Ferguson Service Set, Tools only. Wt. 100 lbs.

ESSENTIAL SERVICE TOOLS FOR OLIVER TRACTORS

FACTORY APPROVED

For the maintenance and service of Oliver tractors and farm implements the set of pullers here illustrated was developed in cooperation with the Oliver Farm Equipment Co., and is recommended to all Oliver dealers. Designed and built to remove and replace bearings, gears, wheels, pulleys, bearing cages, pump impellers, shafts, sleeves and other parts and will accomplish 95% of these jobs on Oliver equipment. A universal set that will operate just as successfully on other makes of tractors and farm machinery as well. No other set on the market can equal its versatility.

The Service Board is optional but recommended as a permanent and practical place to keep these tools. It is attractively finished and serves as an advertisement of your service facilities. For more detailed information on Oliver service applications covering these tools ask or write for Oliver Bulletin No. O-45.

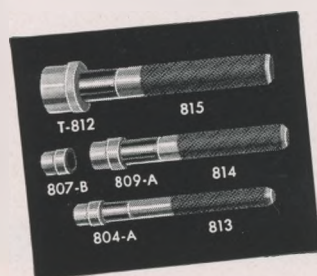


Tool No.	Description
1003	Grip-o-matic Puller
1001-A	Grip-o-matic Puller
938	Push-Puller with 930-D $9\frac{1}{2}$ " legs
930-B	Legs for Push-Puller $16\frac{1}{2}$ " (pair)
930-C	Legs for Push-Puller $22\frac{1}{2}$ " (pair)
930-E	Legs for Push-Puller $4\frac{1}{2}$ " (pair)
938-J	Swivel Sleeve Puller Attachment
952-A	Bearing Pulling Attachment
943	Bearing Cup Pulling Attachment
943-A1	Long Jaws for 943 Attachment
924	Threaded Adaptor $\frac{5}{8}$ "-18 x $\frac{3}{4}$ "-16 female (pr.)
936	Threaded Adaptor $\frac{5}{8}$ "-18 x $1\frac{1}{8}$ "-12 female
630-1	Step Plate Adaptor 1" x $\frac{3}{4}$ "

PE-8 Basic Set + OR-12 Special Set = OR-17 Set.

Tool No.	Description
OR-9	1"-14 Male Plug Adaptor
O-3	Clutch Spring Compressor Plate
O-636	Centering Nipple
O-637	Bull Pinion Bearing Adaptor
O-638	Pump Impeller Adaptor
O-639	Sliding Gear Spacer
970-0	Sleeve Puller Adaptor Plate $3\frac{19}{64}$ " (Model 60)
970-2	Sleeve Puller Adaptor Plate $3\frac{1}{8}$ "
970-10	Sleeve Puller Adaptor Plate $4\frac{1}{8}$ "
970-11	Sleeve Puller Adaptor Plate $4\frac{1}{4}$ "
970-13	Sleeve Puller Adaptor Plate $4\frac{1}{2}$ "
970-15	Sleeve Puller Adaptor Plate $4\frac{3}{4}$ "
OR-14	Service Board (only) 3' x 4'. Wt. 32 lbs.
OR-17	Oliver Service Set, Tools only Wt. 90 lbs.

BUSHING DRIVERS



The Bushing Drivers shown at the left are required to remove and replace Governor, Con Rod, Rocker Arm and Camshaft Bushings on Oliver tractors. The set consists of three mandrels 813, 814 and 815, and four special collars 804-A, 807-B, 809-A and T-812.

No. OR-7—Bushing Set.
Wt. 5 lbs.

MODEL 60 REAR GOVERNOR BUSHING EXTRACTOR

This extractor is used with the No. 938 Push-Puller with 930-D $9\frac{1}{2}$ " legs. The No. 930-10 Adaptor usually used with the 943 Bearing Cup Pulling Attachment is used to connect the extractor to the puller screw. The extractor is threaded into the bushing and then the pulling unit applied.

No. 933—Bushing Extractor.
Wt. $1\frac{1}{4}$ lbs.





ESSENTIAL *Service* TOOLS MINNEAPOLIS-MOLINE

TRACTORS

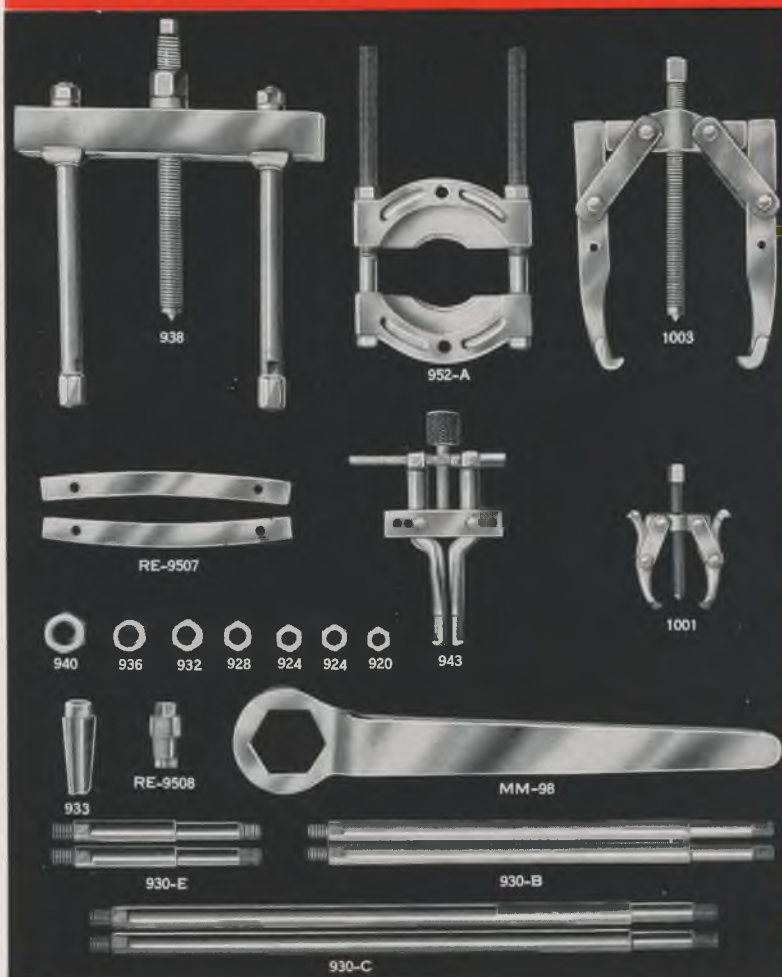
No. MM-18

FACTORY APPROVED

Like the other OTC Tractor Service Sets, this set was developed particularly for use on Minneapolis-Moline tractors and farm implements. It will remove the bearings, bushings, gears, shafts, pinions, pulleys and other parts found on the equipment of this make and will operate just as well on other makes of tractors that may be taken in on trade. Hundreds of these sets already in use testify to their popularity among Minneapolis-Moline dealers.

The Service Board on which these tools are mounted is attractively finished and designed as a permanent place to keep these tools. It will serve as an advertisement of your facilities and prevent the loss of tools.

For more detailed information on specific service applications covered by these tools, ask or write for Minneapolis-Moline Service Bulletin No. D-16.

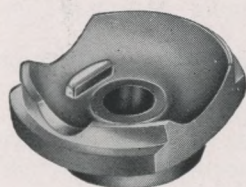
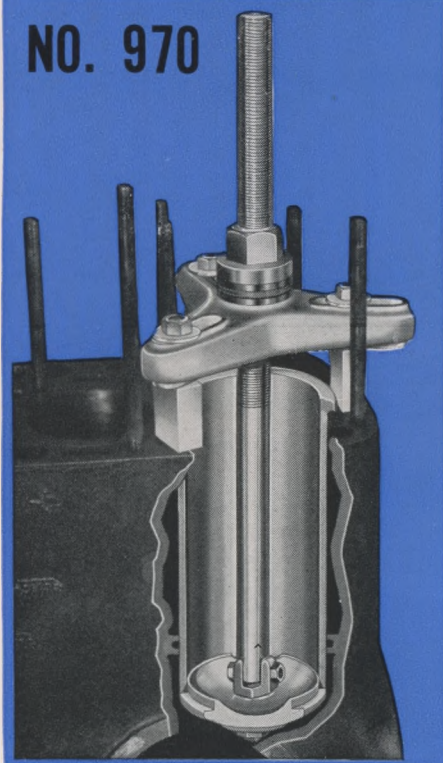


Tool No.	Description
1003	Grip-o-matic Puller
1001	Grip-o-matic Puller
938	Push-Puller with 930-D $9\frac{1}{2}$ " legs
930-B	Legs for Push-Puller $16\frac{1}{2}$ " (pair)
930-C	Legs for Push-Puller, $22\frac{1}{2}$ " (pair)
930-E	Legs for Push-Puller, $4\frac{1}{2}$ " (pair)
952-A	Bearing Pulling Attachment
943	Bearing Cup Pulling Attachment
RE-9507	Flywheel Pulling Bars (pair)
RE-9508	Pilot Bushing Pulling Attachment
MM-98	Flywheel Wrench for "Z" Flywheel Nut
933	Bushing Extractor Attachment
920	Threaded Adaptor $\frac{5}{8}$ "-18 x $\frac{5}{8}$ "-18 female

Tool No.	Description
924	Threaded Adaptor $\frac{5}{8}$ "-18 x $\frac{3}{4}$ "-16 female (pair)
928	Threaded Adaptor $\frac{5}{8}$ "-18 x $\frac{7}{8}$ "-14 female
932	Threaded Adaptor $\frac{5}{8}$ "-18 x 1"-14 female
936	Threaded Adaptor $\frac{5}{8}$ "-18 x $1\frac{1}{8}$ "-12 female
940	Threaded Adaptor $\frac{5}{8}$ "-18 x $1\frac{1}{4}$ "-12 female
MM-17	Service Board (only) 3' x 3'. Wt. 24 lbs.
MM-18	Minneapolis-Moline Service Set, Tools only. Wt. 70 lbs.

PE-8 Basic Set + MM-10 Special Set = MM-18 Set.

NO. 970



ADAPTOR PLATES

A complete range of sizes of Adaptor Plates is available to adapt the Universal Sleeve Puller to practically any make of truck or tractor using wet cylinder liners. Popular makes and models are listed at the right to facilitate the selection of the proper size adaptor. This tool is not recommended for pulling dry sleeves.

No.	Size	Wt. Lbs.	No.	Size	Wt. Lbs.
970-1	3"	1½	970-11	4¼"	2¾
970-2	3⅛"	1½	970-12	4⅜"	2¾
970-3	3¼"	1¾	970-13	4½"	2¾
970-0	3⅝"	1¾	970-14	4⅝"	3½
970-4	3⅞"	1¾	970-15	4¾"	3½
970-4B	3⅞"	1¾	970-16	4⅞"	3½
970-4H	3⅞"	1¾	970-17	5"	3¾
970-5	3½"	1¾	970-18	5⅛"	4
970-5C	3⅝"	1¾	970-19	5¼"	4½
970-6	3⅞"	2	970-20	5⅝"	4½
970-7	3¾"	2	970-21	5⅞"	4½
970-8	3⅞"	2¼	970-22	5⅞"	4½
970-8M	3⅞"	2¼	970-23	5⅞"	5
970-9	4"	2½	970-24	5⅞"	6
970-10	4⅛"	2½	970-25	6"	6¼

UNIVERSAL SLEEVE PULLER

Built to service over 100 makes and models of tractors and trucks using wet cylinder liners, the OTC Sleeve Puller is the only truly universal tool of its kind on the market. (Recommended for Wet Sleeves Only)

This tool is adjustable to provide clearance regardless of the position of cylinder studs. Adjustable legs permit centering the tool easily while the hinged adaptor plates can be applied from the top without taking the tool apart. The long pulling screw has a fine thread which assures an even, steady pull and a thrust bearing is provided to reduce friction on the forcing nut.

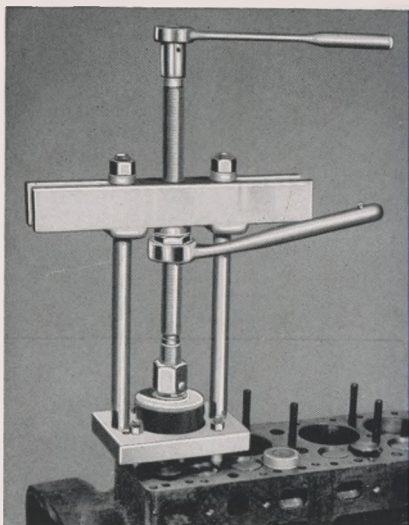
This puller is substantially built for long service and is recommended by leading truck and tractor manufacturers.

Adaptor plates from 3" to 6" are available to fit any sleeve within this range. See specifications below.

No. 970 Sleeve Puller (only) Weight 18½ lbs.

NUMBER 970 FITS THE FOLLOWING TRACTORS

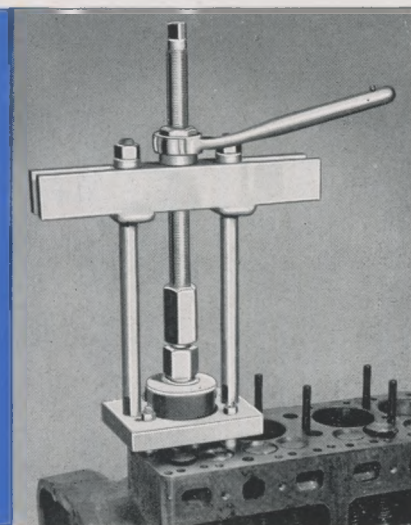
Year and Model	Plate Required	Year and Model	Plate Required
ALLIS-CHALMERS			
B.....	970-3	FBB-279, A-4, A-5, A-6	
RC, C.....	970-4	C-50, C-50-F, C-50T,	
WC, W, WF, W-25.....	970-9	CS-50, CS-50-T.....	970-6
U, M, UM, UC.....	970-13	FBB-3, FBB-298, D-50,	
U, WM, U-40, UC, 42		DR-50 DS-50, D-500,	
Patrol.....	970-14	DR-500, DS-500, D-246T,	
E, A.....	970-15	DS-246T, DR-246T, D-	
E, E60, L90, L, LO, KO.....	970-19	246F, A-5, A-6, C-55, C-55F,	
SO.....	970-23	C-55T, C-60, C-60T.....	970-7
I. I. CASE			
Combine & Baler Engs.....	970-1	63, 94, 103, 54, 54-C, 74,	
"VA" Series.....	970-3	74-C, 104-C.....	970-11
S, SC, SO, SI, SE, ES "V" Comb.		FD, A-7, A-7F.....	970-13
SE Self Prop. Comb.....	970-5	FE-A8, A-8F, AR-626, F.....	970-17
C, CC, CV CH, CC-S, CE "P"		MASSEY-HARRIS	
Comb., CI Mod., DE Comb., DE		12, PA, CH.....	970-8
Self Prop. Comb., CO, CI, D.....	970-8	4 Wheel Drive, UP.....	970-9
L, LI, LE, L Unit.....	970-14	20, 25.....	970-12
CATERPILLAR			
RD-4, Model 12.....	970-11	MCCORMICK-DEERING	
RD-6, RD-7, RD-8.....	970-23	F-12, F-14, A, AV, B, BN,	
CLEVELAND			
BD.....	970-5	U-2.....	970-1
40-D, DD.....	970-12	Farmall, H.....	970-4H
80-D, FD.....	970-17	Farmall, F-20, T-20, U-7,	
INTERNATIONAL TRUCKS			
FAB-241, D-35, DS-35,		T-40, W-40, P-40.....	970-7
D-35-B, D-216-T, DS-		10-12, 20, 200, F-30, W-30,	
216-T, D-216-F, K-6, KS-6		Farmall, M.....	970-8M
K-6T, K-6-F; K-6B, FAC 241		I-30, P-30.....	970-11
engine.....	970-4	15-30, 30, 300, TD-35.....	970-13
FAB-2, B-3.....	970-4B	22-36, TD-40, PD-80, TD-14	
FAB-259, D-40, DS-40, D-		TD-18, UD-18.....	970-15
400, DS-400, K-F, KS-7,		MINNEAPOLIS-MOLINE	
K-700-E, KS-700E, FAC 259		12-20, 17-28, KT, TY, MT,	
engine.....	970-5	11-20, 13-25, DU.....	970-11
FAB-223, B-4, C-35, C-35T,		FTA.....	970-14
CS35, CS-35-T, C-35B,		17-30A.....	970-15
CS-35B, C-40, C-40F,		27-42, 17-30B.....	970-16
C-40-T, CS-40, CS-40T.....	970-5C	OLIVER	
		70 Rowcrop, 70 Std.....	970-2
		Model 60.....	970-0
		Std. Rowcrop, 18-28.....	970-10
		28-44, A-3-S.....	970-15



FORD TRACTOR SLEEVE PULLER

The illustration at the right shows the proper set-up and procedure for removing Ford tractor sleeves without removing the engine from the chassis. Be sure the tool is properly aligned.

The illustration on the left shows the proper set-up and procedure for replacing Ford tractor sleeves. When removing or replacing sleeves it is important that the tool is properly aligned.



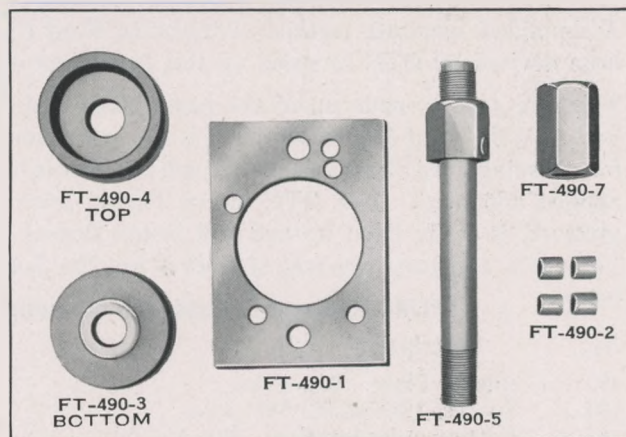
The group photograph at the right shows the component parts that are required in connection with the OTC Push-Puller No. 938 with 930-D 9 $\frac{1}{2}$ " legs to remove and replace the dry cylinder liners used in the Ford-Ferguson tractor without removing the engine from the chassis. This Sleeve Puller set increases the range and utility of the OTC Push-Puller and is a necessity in any shop servicing Ford tractors.

A complete Ford tractor puller set is illustrated and described on page 37 and this Sleeve Puller Attachment is a necessary supplement to that set. Hundreds of them are in daily use and have proven their worth and value.

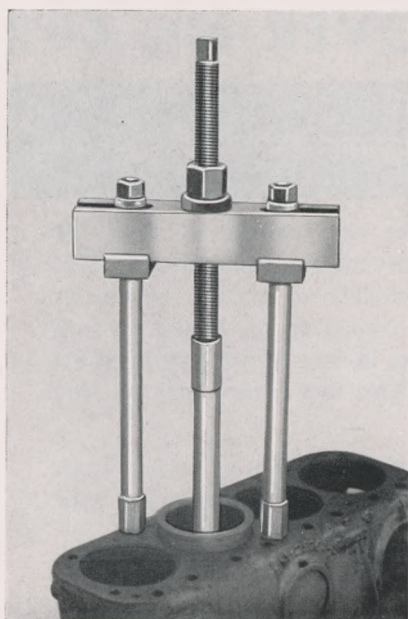
Any tractor dealer now having an OTC Push-Puller can use this set to advantage.

No. FT-490—Ford-Ferguson Sleeve Puller Attachment Set. Wt. 12 $\frac{1}{2}$ lbs.

This set is to be obtained through Authorized Ferguson Distributors who sell them only to Authorized Dealers thoroughly trained in giving proper service.

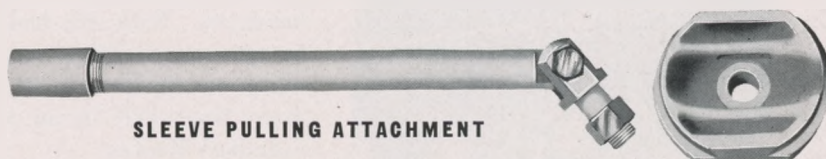


The above parts are packaged as a complete set, but individual parts are available and listed in the parts price list. The Wrenches shown in the two illustrations above are not a part of the set.



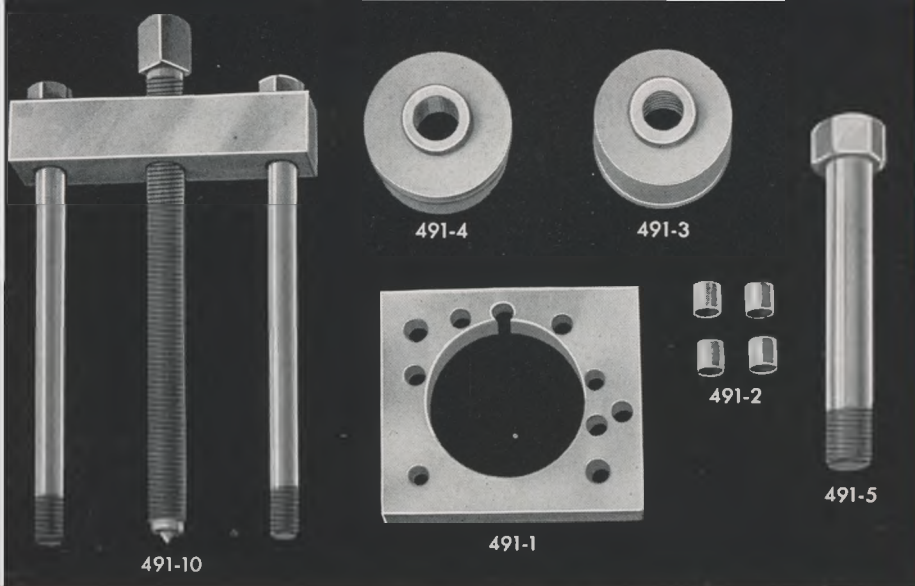
SLEEVE PULLING ATTACHMENT

The swivel extension attachment shown below is built for use with the OTC No. 930 or 938 Push-Puller for pulling wet sleeves on a great many makes and models of trucks and tractors. It is an extension which is attached to the Push-Puller forcing screw and which utilizes Adaptor Plates of various sizes to fit different size sleeves.



The picture on the left illustrates the use of this attachment with an OTC Push-Puller and is typical regardless of the make of truck or tractor. Adaptor plates for use with this Attachment are listed on the preceding page (41).

No. 938-J—Sleeve Pulling Extension (only). Wt. 3 $\frac{3}{4}$ lbs.



FORD **CYLINDER** **SLEEVE** **REPLACER** **NO. 491-A**

A simplified, accurate method of replacing Ford Cylinder Sleeves has been devised by OTC to speed up this heretofore difficult job.

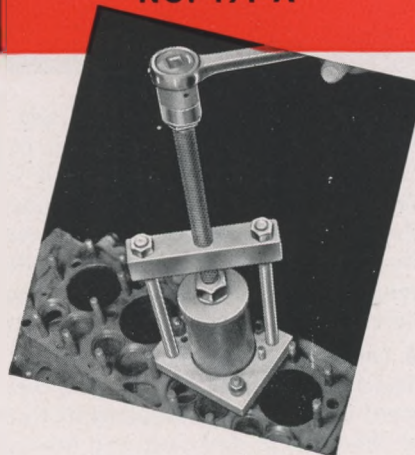
This new tool is made up of the parts illustrated above and handles both the $3\frac{3}{16}$ " and $3\frac{1}{16}$ " sleeves. It is the safest and less costly system for replacing Ford Sleeves since they will not buckle if the tool is properly applied and used. This OTC Sleeve Pusher provides a steady, even pressure, is easily lined up and will install sleeves without distortion. For quick and easy removal of sleeves see the Ford Sleeve Remover below.

FORD Replacer contains the following parts:

No.	Description
491-1	Pusher Plate. Wt. 4 lbs.
491-2	Spacers (Set of 4). Wt. 2 oz.
491-3	Bottom Adaptor $3\frac{1}{16}$ ". Wt. $1\frac{1}{2}$ lbs.
491-4	Upper Adaptor $3\frac{1}{16}$ ". Wt. $1\frac{3}{4}$ lbs.
491-5	Pusher Stud. Wt. 2 lbs.
491-10	Pusher Assembly. Wt. $6\frac{3}{4}$ lbs.
491	Sleeve Replacer for $3\frac{1}{16}$ " sleeve, complete as illustrated above. Wt. $15\frac{1}{2}$ lbs.

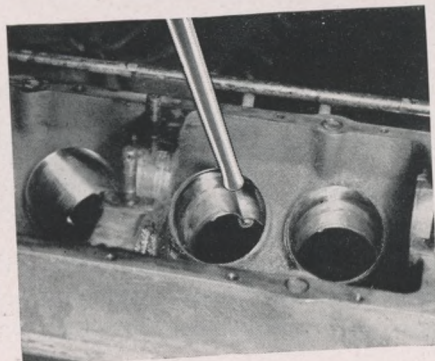
Add these Adaptors for $3\frac{3}{16}$ " Sleeves

490-3	Bottom Adaptor $3\frac{3}{16}$ ". Wt. $1\frac{1}{2}$ lbs.
490-4	Upper Adaptor $3\frac{3}{16}$ ". Wt. $1\frac{3}{4}$ lbs.
491-A	Ford Sleeve Puller complete for $3\frac{1}{16}$ " and $3\frac{3}{16}$ " Sleeves. Wt. $18\frac{3}{4}$ lbs.



The action picture above illustrates the 491 Sleeve Pusher in operation. Four small spacers (491-2) are used under the pusher plate 491-1 and the tool lined up as shown. Ratchet and socket are not furnished with the set.

FORD CYLINDER SLEEVE REMOVER No. 492

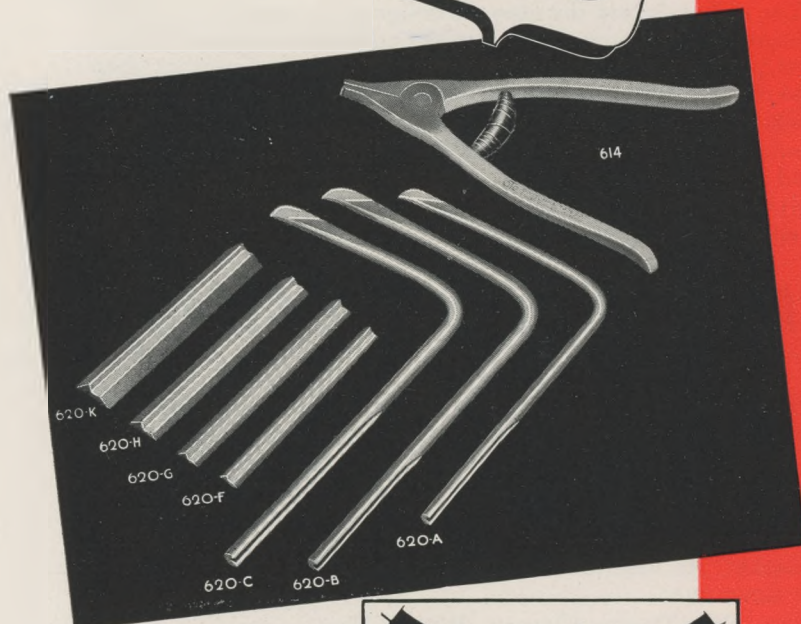


This new OTC tool simplifies the removal of Ford V8 Cylinder Sleeves and makes this job a pleasure instead of a headache. With this tool a complete set of Ford sleeves can be removed in 15 minutes as compared to the old method which usually took three to five hours. It will pay for itself many times over in one job. This tool is used only on .400 Standard Sleeves.

Operation: Start the tool from the bottom at an angle. Then straighten parallel to cylinder bore and drive downward until sleeve is removed.

No. 492—Ford Cylinder Sleeve Remover. Wt. $1\frac{1}{2}$ lbs.

SNAP RING SERVICE SET



This end view shows the cam and wedge in proper position.

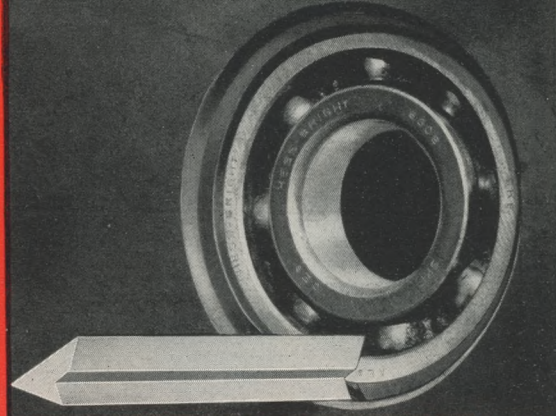
This end view shows how the cam lifts the end of the Snap Ring.



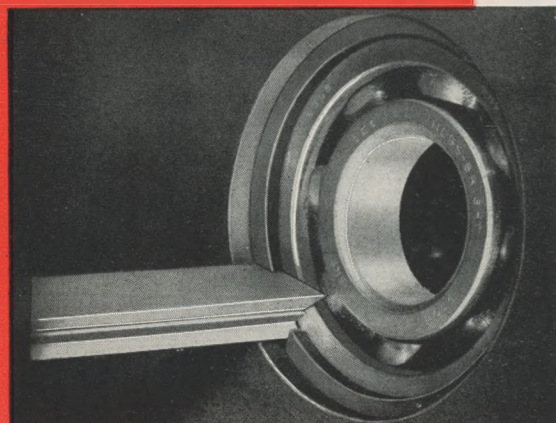
The OTC Snap Ring Service Set is designed and built to remove both the expanding type Snap Rings found in bores, and the contracting type Snap Ring used to retain bearings and gears on shafts. These snap rings are made of tough, strong steel and are very difficult to remove without the proper tools. Especially when snap rings are located three or four inches from the end of the bore are they difficult to remove when bearings must be removed or replaced.

With this OTC Snap Ring Set the job is simplified almost beyond belief. There is no further need to smash fingers or ruin screw drivers. Follow the simple directions and illustrations on the right for best success.

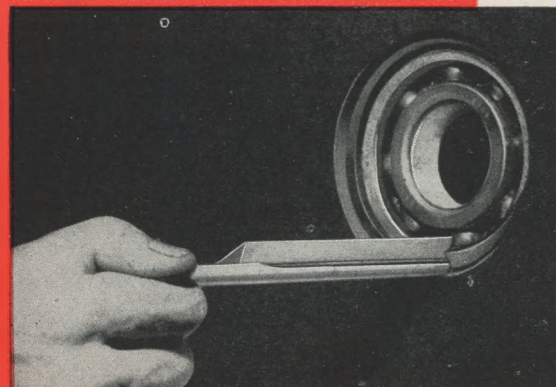
- No. 614—Snap Ring Pliers (only). Wt. 10 oz.
- No. 620-A—Lifting Cam $\frac{1}{4}$ "
- No. 620-B—Lifting Cam $\frac{9}{32}$ "
- No. 620-C—Lifting Cam $\frac{5}{16}$ "
- No. 620-F—Wedge $\frac{5}{16}$ "
- No. 620-G—Wedge $\frac{3}{8}$ "
- No. 620-H—Wedge $\frac{1}{2}$ "
- No. 620-K—Wedge $\frac{5}{8}$ "
- No. 620—Snap Ring Set in box. Wt. $2\frac{3}{4}$ lbs.
- No. 620-P—Snap Ring Set less Pliers. Wt. $2\frac{1}{4}$ lbs.
- No. 620-S—Snap Ring Box (only). Wt. $1\frac{1}{4}$ lbs.



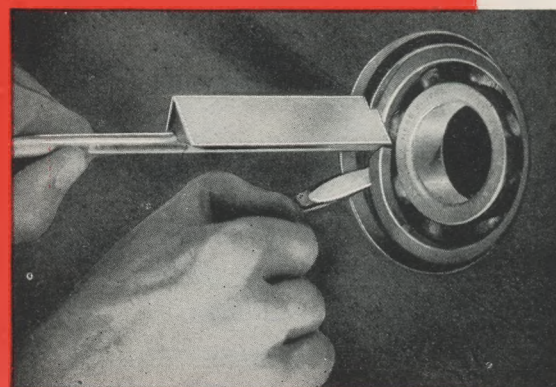
Select the proper size wedge and insert between Snap Ring gap as shown above.



Place the lifting cam in the channel of the wedge, rounded side to the back, with the sharp edge of the cam engaging the point of the snap ring.



The picture above shows the position of tools when in position to operate. Turn cam to lift out end of snap ring.



When end of snap ring is lifted pry out with the blade end of a 2nd lifting cam.

TRACTOR PISTON RING PLIER

NO. 615

A specially designed plier built to simplify the removal and replacement of piston rings of large diameters. These pliers provide sufficient leverage to handle these rings without twisting or breaking. The milled slots in the nose are designed to receive rings which are diagonally cut, step-cut or straight-cut without distortion and do not permit the ring to slip. No truck or tractor service shop should be without this handy tool. It saves time and reduces damage to rings.

Drop-forged from high alloy steel and heat-treated for long, rugged service.

No. 615—Tractor Piston Ring Pliers. Wt. $\frac{3}{4}$ lb.
Packed six to a carton.

TRACTOR RING GROOVE CLEANER

NO. 640

Another handy truck and tractor tool that has proven its value in thousands of shops. This Ring Groove Cleaner has a cutter with four blades to handle ring grooves $\frac{1}{8}$ ", $\frac{3}{16}$ ", $\frac{1}{4}$ " and $\frac{5}{16}$ " and will clean grooves slightly over these sizes. The handles are adjustable from 3" to 6 $\frac{3}{4}$ " and will handle any piston within those diameters. This adapts it to practically every make of truck or tractor on the market. An exceptionally handy tool that will pay for itself many times over.

No. 640—Ring Groove Cleaner. Wt. 1 $\frac{3}{4}$ lbs.

No. 640-C—Cutter (only) for 640.

HEAVY DUTY SPANNER WRENCH

No truck or tractor service shop is complete without an OTC Spanner Wrench. Built especially for work on tractors, trucks, road machinery, power shovels, etc. Wherever turret adjusting nuts, packing gland nuts and other turret type nuts are used this tool is indispensable.

Two sizes are available providing a range of adjustments from 1 $\frac{1}{2}$ " to 6". The larger size No. 886 is a stub type wrench requiring the use of a Tubular Handle No. M-28.

No. 885—Spanner Wrench 1 $\frac{1}{2}$ " to 4", length 19". Wt. 3 lbs.

No. 886—Spanner Wrench 3" to 6" (less Tubular Handle).

Wt. 5 lbs.

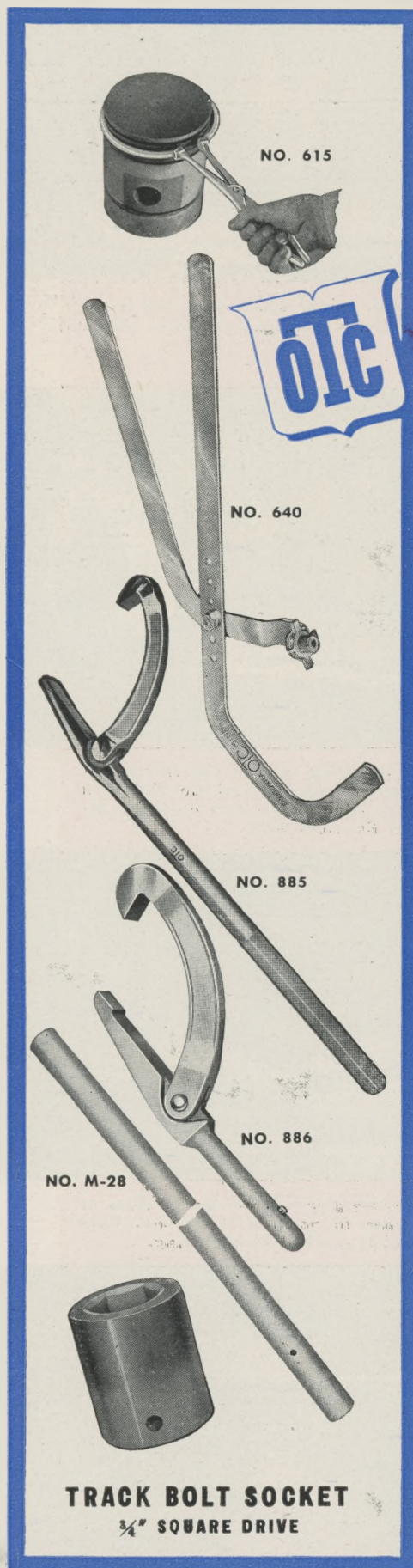
No. M-28—Tubular Handle 24" long. Wt. 2 $\frac{3}{4}$ lbs.

CATERPILLAR TRACK BOLT SOCKETS

Heavy, thick walled, hexagon sockets designed especially for use in removing track bolts on Caterpillar tracks. Service men will find that a great deal of time can be saved and the job simplified with these special sockets. Due to the abuse and hard usage they must undergo these sockets are not guaranteed against breakage or wear. All track sockets have the conventional $\frac{3}{4}$ " square drive.

No. TD-5 Set of one each, Weight 3 $\frac{1}{4}$ lbs.

No.	Size	Length	O D	Weight
TD-320	$\frac{5}{8}$ "	1 $\frac{3}{4}$ "	1 $\frac{1}{4}$ "	8 oz.
TD-324	$\frac{3}{4}$ "	1 $\frac{3}{4}$ "	1 $\frac{5}{16}$ "	7 $\frac{1}{2}$ oz.
TD-328	$\frac{7}{8}$ "	2"	1 $\frac{3}{16}$ "	11 $\frac{1}{2}$ oz.
TD-330	1 $\frac{1}{8}$ "	2"	1 $\frac{1}{16}$ "	10 $\frac{1}{2}$ oz.
TD-336	1 $\frac{1}{4}$ "	2 $\frac{1}{4}$ "	1 $\frac{7}{8}$ "	17 oz.



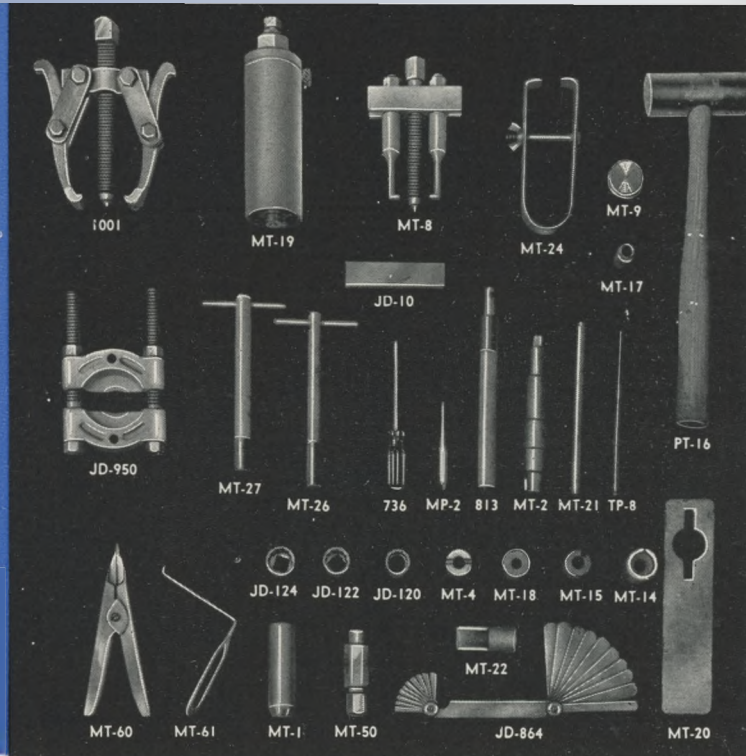
TRACK BOLT SOCKET
 $\frac{3}{4}$ " SQUARE DRIVE

Magneto **Service** **TOOL SET**

NUMBER MT-31

The OTC Magneto Set here illustrated is one that is not designed for any one special make or model but which will do a great many jobs on various makes of magnetos including Wico, Fairbanks-Morse, International Harvester, Splitdorf, etc. Tools included in this set are as follows:

Tool No.	Description
MT-1	Bearing Installation Tool for FM—"RV", "R2" and Splitdorf "46" and "CD"
MT-2	Impulse Coupling Spring Tool for FM—"RV", "R2", Wico "AP" and "C"
MT-4	Impulse Coupling Nut Wrench for FM—"RV" and "R2"
MT-8	Impulse Coupling Puller for FM—"RV" and "R2", Splitdorf "CD" and "46"
MT-9	Outer Race Driver for FM "RV"
MT-14	Impulse Coupling Spring Tool (Use with MT-2) for Wico "AP"
MT-15	Impulse Coupling Spring Tool (Use with MT-2) for FM—"RV" and "R2"
MT-17	Removal and Installation Tool (Use with 813) for Wico Rotor Needle Bearing
MT-18	Removal and Installation Tool (Use with 813) for "R2" Cam Bearing and Splitdorf "CD" Felt Retainer
MT-19	Outer Race Puller for "RV" and "R2"
MT-20	Impulse Coupling Lug Wrench for "R2", "RV", "CD", "46" and Wico
MT-21	Tee Handle (Use with MT-2 and MT-4)
MT-22	Gear Removal and Installation Tool (Use with 813) for "RV"
MT-24	Fiber Gear Removal Tool for Splitdorf "CD"
MT-26	$\frac{5}{16}$ " Tee Socket Wrench
MT-27	$\frac{3}{8}$ " Tee Socket Wrench
MT-50	Impulse Coupling Puller for International "H-1", "H-4", "F-4", "F-6"
MT-60	Snap Ring Plier
MT-61	Snap Ring Lifting Tool or Pick (Use with MT-60)
JD-120	Impulse Coupling Nut Socket for Wico "AP"



JD-122	Impulse Coupling Nut Socket for Splitdorf "CD"
JD-124	Impulse Coupling Nut Socket for Wico "C"
1001	Grip-o-matic Puller
950	Bearing Pulling Attachment
864	Thickness Gauge
813	Driving Mandrel
736	Screw Driver $\frac{5}{32}$ " Bit
JD-10	Honing Stone
PT-16	Soft Tip Hammer
MP-2	Bearing Removal Punch
TP-8	Taper Punch $\frac{1}{8}$ " Bit
MT-90	Metal Case $9\frac{1}{2}$ " x $14\frac{3}{4}$ " x 2"

This set contains 32 individual items including the metal case and is the most complete set of its kind on the market. Many of the tools included in this set are universal tools which can be used on all makes and models of magnetos and which can be utilized to do other electrical jobs as well.

No. MT-31—Magneto Service Set, complete in Metal Case. Wt. 18 lbs.



MASTER SERVICE SET

No. T-625 Formerly JD-615

A complete hand tool set with every tool chosen particularly for the truck and tractor service man. It covers a range of sizes from $\frac{7}{16}$ " to $1\frac{3}{4}$ " and all the wrenches needed to service trucks, tractors and farm implements.

The T-625 set contains fourteen $\frac{1}{2}$ " drive sockets 114, $\frac{7}{16}$ " 116, $\frac{1}{2}$ " 118, $\frac{9}{16}$ " 120, $\frac{5}{8}$ " 122, $\frac{11}{16}$ " 124, $\frac{3}{4}$ " 126, $\frac{13}{16}$ " 128, $\frac{7}{8}$ " 130, $\frac{15}{16}$ " 132, 1" twelve point and four 8 point sockets S-114, $\frac{7}{16}$ " S-116, $\frac{1}{2}$ " S-118, $\frac{9}{16}$ " and S-120, $\frac{5}{8}$ " with 7 handles to fit, No. H-161 Ratchet, H-176 Flex Handle, H-13 T-Bar, H-183 Speed Handle, H-173, 10" Extension, H-172, 6" Extension and H-189 Universal Joint. Also ten $\frac{3}{4}$ " Drive Sockets 334, $\frac{11}{16}$ " 336, $\frac{11}{8}$ " 340, $\frac{11}{4}$ " 342, $\frac{15}{16}$ " 344, $\frac{13}{8}$ " 346, $\frac{17}{16}$ " 348, $\frac{11}{2}$ " 352, $\frac{15}{8}$ " 354, $\frac{11}{16}$ " and 356, $\frac{13}{4}$ " with 3 handles H-361 Ratchet, H-373, 10" Extension, H-371, $\frac{41}{2}$ " Extension. Eleven combination wrenches C-14, $\frac{7}{16}$ " C-16, $\frac{1}{2}$ " C-18, $\frac{9}{16}$ " C-20, $\frac{5}{8}$ " C-22, $\frac{11}{16}$ " C-24, $\frac{3}{4}$ " C-28, $\frac{7}{8}$ " C-30, $\frac{15}{16}$ " C-32, 1" C-34, $\frac{11}{16}$ " and C-40, $\frac{11}{4}$ ".

The following miscellaneous tools are also included; two Screw Drivers, 737-A, 6" and 741, 14", No. H-166 Phillips Attachment, BP-32, 2 pound Ball Pein Hammer, PT-16, 12 oz. Soft Tip Hammer, 864 Feeler Gauge, AC-10 Honing Stone, 3 files, FF-12, 12" flat, FR-10, 10" round and FS-12, 12" square, No. 712, 6" Slip Joint Plier, No. DA-10, 10" Adjustable Wrench, PW-10, 10" Pipe Wrench, No. 614 Snap Ring Plier, PB-45 Pry Bar, CC-24, $\frac{7}{8}$ " and CC-12, $\frac{1}{16}$ " Cold Chisels, FC-20, $\frac{5}{8}$ " Special Chisel, TP-24, $\frac{5}{16}$ " and TP-12, $\frac{3}{16}$ " Taper Punches, CP-20, $\frac{5}{8}$ " Center Punch and F-1618, $\frac{1}{2}$ x $\frac{9}{16}$ " Flex Wrench all in the No. 110 Mechanics Chest.

No. T-625—Master Service Set in Chest. Wt. 100 lbs.

STANDARD CHEST No. 110

A sturdy, well built chest of welded construction. It has a roomy top compartment in addition to 3 drawers all 21" long and $1\frac{1}{2}$ ", 2" and 3" deep respectively mounted on compound slides. See page 81 for more details.

No. 110—Chest 22" x $8\frac{3}{4}$ " x $9\frac{1}{2}$ ". Wt. 30 lbs.

STANDARD SERVICE SET No. T-630

Formerly JD-600

A hand tool set especially selected for men who service trucks, tractors and farm implements, less complete than the set above but which can easily be expanded by adding other tools. Contains nine 12 point $\frac{1}{2}$ " drive sockets Nos. 114, $\frac{7}{16}$ " 116, $\frac{1}{2}$ " 118, $\frac{9}{16}$ " 120, $\frac{5}{8}$ " 122, $\frac{11}{16}$ " 124, $\frac{3}{4}$ " 128, $\frac{7}{8}$ " 130, $\frac{15}{16}$ " and 132, 1" with 6 handles to fit, H-161 Ratchet, H-176 Flex Handle, H-13 T-Bar, H-183 Speed Handle, H-173, 10" and H-172, 6" Extensions. Seven 12 point $\frac{3}{4}$ " drive sockets, Nos. 334, $\frac{11}{16}$ " 336, $\frac{11}{8}$ " 340, $\frac{11}{4}$ " 342, $\frac{15}{16}$ " 344, $\frac{13}{8}$ " 346, $\frac{17}{16}$ " 348, $\frac{11}{2}$ " and 352, $\frac{15}{8}$ " with H-387 Sliding Tee and H-373, 10" Extension to fit. Six Combination Wrenches, C-14, $\frac{7}{16}$ " C-16, $\frac{1}{2}$ " C-18, $\frac{9}{16}$ " C-20, $\frac{5}{8}$ " C-22, $\frac{11}{16}$ " and C-24, $\frac{3}{4}$ ".

Miscellaneous tools included are: two Screw Drivers 737-A, 6" and 741, 14", No. BP-32, 2 lb. Hammer, No. PT-16 Soft Tip Hammer, 860 Feeler Gauge, AC-10 Honing Stone, 3 Files, FF-12, 12" flat, FR-10, 10" round and FS-12, 12" square; DA-10, 10" Adjustable Wrench, PW-10, 10" Pipe Wrench, PB-43 Pry Bar, CC-24, $\frac{7}{8}$ " and CC-12, $\frac{1}{16}$ " Cold Chisels, TP-24, $\frac{5}{16}$ " and TP-12, $\frac{3}{16}$ " Taper Punches and CP-20, $\frac{5}{8}$ " Center Punch all in the No. 110 Mechanics Chest. No. T-640—Standard Set in Chest. Wt. 75 lbs.



Tractor
Service
Sets



No. 110
STANDARD
MECHANICS CHEST





SLEDGING WRENCHES



BOX WRENCHES

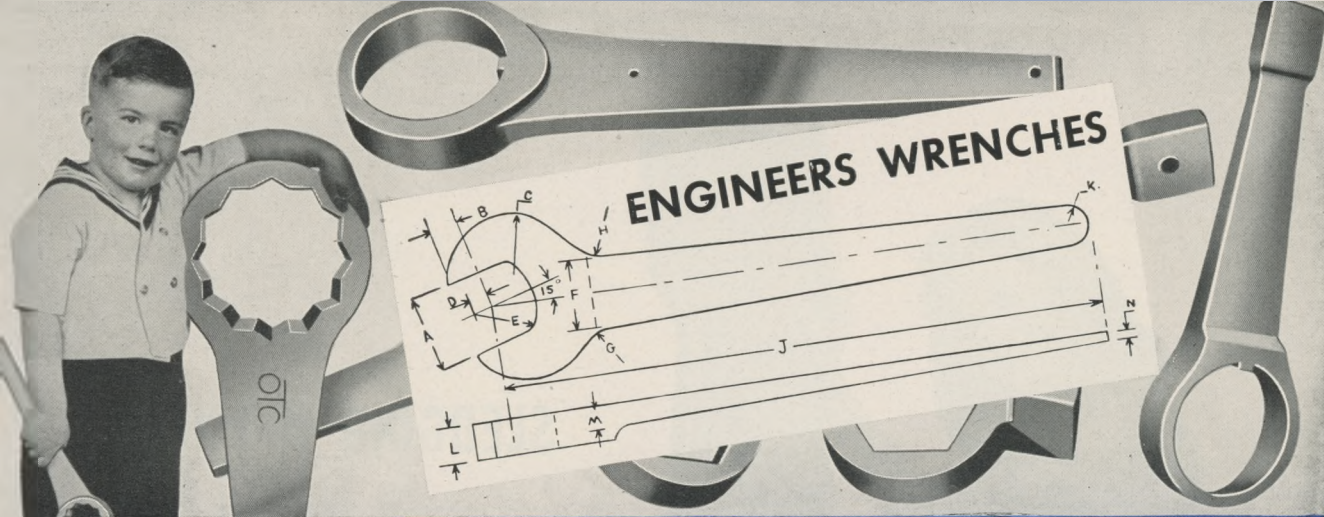


OPEN END WRENCHES



SOCKET WRENCHES

**OWATONNA
WRENCHES**

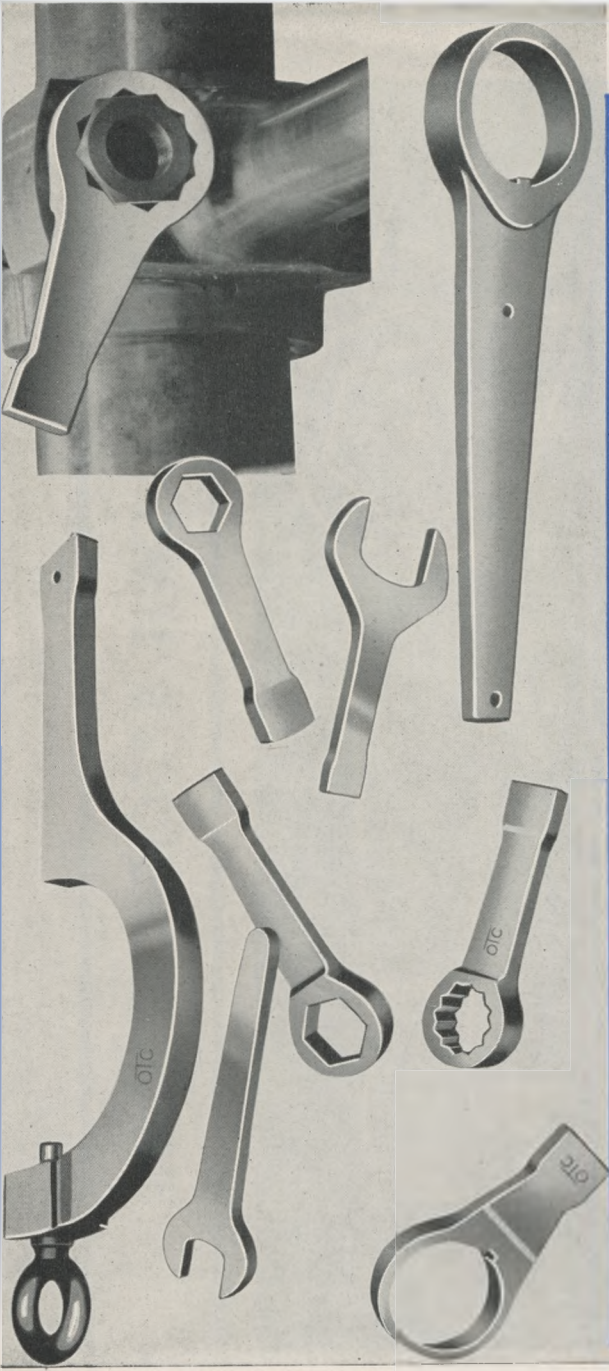


N ^o	A +0.016 -0.000	B	C	D	E	F	G	H	J	K	L	M	N
EO 32	1	11/32	13/16	5/32	3/4	15/16	13/16	1	8	5/16	1/2	1/2	1/2
34	1 1/16	3/8	7/8	5/16	13/16	15/16	7/8	1 1/16	8 1/2	5/16	5/8	5/8	5/8
36	1 1/8	3/8	29/32	5/16	27/32	1	15/16	1 1/8	9	11/32	5/8	5/8	5/8
40	1 1/4	7/16	1	7/32	15/16	1 1/8	1	1 1/4	10	3/8	3/4	1/2	3/8
42	1 5/16	7/16	1 1/16	7/32	31/32	1 3/16	1 1/16	1 5/16	10 3/8	13/32	3/4	1/2	3/8
46	1 7/16	1/2	1 1/8	1/4	1 1/16	1 1/4	1 1/8	1 7/16	11 1/4	7/16	7/8	5/8	1/2
48	1 1/2	1/2	1 7/32	1/4	1 1/8	1 3/8	1 1/4	1 1/2	12	7/16	7/8	5/8	1/2
52	1 5/8	9/16	1 5/16	9/32	1 7/32	1 7/16	1 5/16	1 9/8	12 7/8	15/32	7/8	5/8	1/2
54	1 11/16	19/32	1 5/8	5/16	1 1/4	1 1/2	1 3/8	1 11/16	13 1/2	21/32	7/8	5/8	1/2
58	1 13/16	5/8	1 5/32	5/16	1 3/8	1 5/8	1 1/2	1 13/16	14 1/2	23/32	1	5/8	1/2
60	1 7/8	21/32	1 17/32	11/32	1 15/32	1 11/16	1 9/16	1 7/8	15	9/16	1	5/8	1/2
64	2	11/16	1 5/8	11/32	1 1/2	1 13/16	1 5/8	2	16	19/32	1	5/8	1/2
66	2 1/16	23/32	1 11/16	3/8	1 9/16	1 7/8	1 11/16	2 1/16	16 5/8	5/8	1	5/8	1/2
70	2 3/16	3/4	1 3/4	3/8	1 5/8	1 15/16	1 3/4	2 3/16	17 1/2	21/32	1	5/8	1/2
72	2 1/4	25/32	1 25/32	13/32	1 21/32	2	1 13/16	2 1/4	17 3/8	11/16	1	5/8	1/2
76	2 3/8	25/32	1 29/32	13/32	1 25/32	2 1/16	1 15/16	2 3/8	19	23/32	1 1/4	7/8	5/8
78	2 7/16	13/16	1 31/32	13/32	1 13/16	2 3/16	2	2 7/16	19 1/2	3/4	1 1/4	7/8	5/8
82	2 9/16	7/8	2 1/16	7/16	1 15/16	2 1/4	2 1/16	2 9/16	20 1/2	3/4	1 1/4	7/8	5/8
84	2 5/8	29/32	2 1/8	11/32	1 31/32	2 3/8	2 1/8	2 5/8	21	25/32	1 1/4	7/8	5/8



OTC ENGINEERS WRENCHES

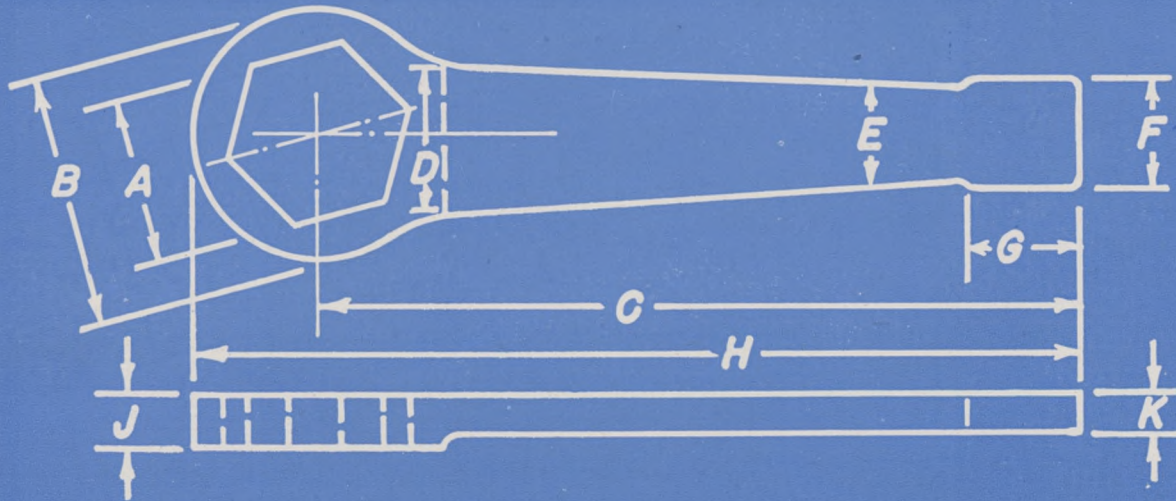
OTC Engineers Wrenches are available in sizes and designs other than those shown in the specifications on these pages. OTC production facilities are such that many variations in size and design are possible. The wrenches illustrated on these two pages show the variety of types which can be built. Special wrench problems are solicited where standard designs do not fit requirements. Special production and maintenance wrenches can be designed and built to meet the requirements of any industry including marine, railroad, mill, mine, manufacturing, etc. Designs and prices will be submitted on application.



Nº	A	B	C	D	E	F	G	H	J	K	L	M	N
E0 88	2 3/4	1 1/8	2 3/16	1 1/32	2 1/8	2 3/16	2 1/32	2 3/4	22	2 1/32	1 3/8	7/8	5/8
90	2 13/16	1 1/32	2 49/32	1/2	2 3/16	2 1/8	2 3/32	2 13/16	22 1/2	2 1/32	1 3/8	7/8	5/8
94	2 15/16	1	2 3/8	1/2	2 3/16	2 3/8	2 3/8	2 11/16	23 1/2	7/8	1 3/8	7/8	5/8
96	3	1	2 7/16	1/2	2 1/2	2 3/4	2 7/16	3	24	23/32	1 3/8	7/8	5/8
100	3 1/8	1 1/16	2 11/32	13/64	2 11/32	2 3/4	2 11/32	3 1/8	24 1/2	15/16	1 3/8	7/8	5/8
108	3 3/8	1 1/32	2 3/4	13/32	2 11/32	3 1/4	2 3/4	3 1/8	27	1	1 5/8	1	5/4
112	3 1/2	1 1/32	2 47/32	5/8	2 1/8	3 3/4	2 37/32	3 1/2	28	1 1/16	1 5/8	1	5/4
120	3 3/4	1 1/32	3 1/32	5/10	2 3/4	3 3/4	3 1/32	3 3/4	30	1 1/8	1 5/8	1	5/4
124	3 7/8	1 1/32	3 1/8	19/32	2 37/32	3 3/16	3 1/8	3 7/8	31	1 5/16	1 5/8	1	5/4
132	4 1/8	1 13/32	3 11/16	11/16	3 3/32	3 11/16	3 7/32	4 1/8	33	1 1/4	1 5/8	1	5/4
144	4 1/2	1 5/8	3 23/32	2 5/32	3 3/8	4 1/16	3 11/32	4 1/2	36	1 1/2	1 5/8	1	5/4
148	4 5/8	1 3/4	3 3/4	15/16	3 11/32	4 1/8	3 3/4	4 1/2	38 3/4	1 3/4	2	1 1/4	1
160	5	1 13/32	4 1/16	7/8	3 3/4	4 1/2	4 1/16	5	40	1 1/2	2	1 1/4	1
172	5 3/8	1 11/32	4 11/32	11/16	3 3/4	4 3/4	4 11/32	5 1/8	43	1 5/8	2	1 1/4	1
184	5 3/4	1 13/32	4 23/32	1	4 3/32	5 1/8	4 23/32	5 3/4	46	1 3/4	2	1 1/4	1
196	6 1/8	2 1/8	4 13/16	1 1/16	4 3/8	5 1/2	4 13/16	6 1/8	49	1 7/8	2	1 1/4	1
208	6 1/2	2 11/32	5 1/4	1 1/8	4 3/8	5 3/8	5 1/4	6 1/2	52	2	2 3/4	1 1/2	1 1/4
220	6 3/8	2 1/4	5 5/16	1 3/16	5 1/8	6 1/8	5 5/16	6 3/8	55	2 1/4	2 3/4	1 1/2	1 1/4



MODEL SWH SPECIFICATIONS

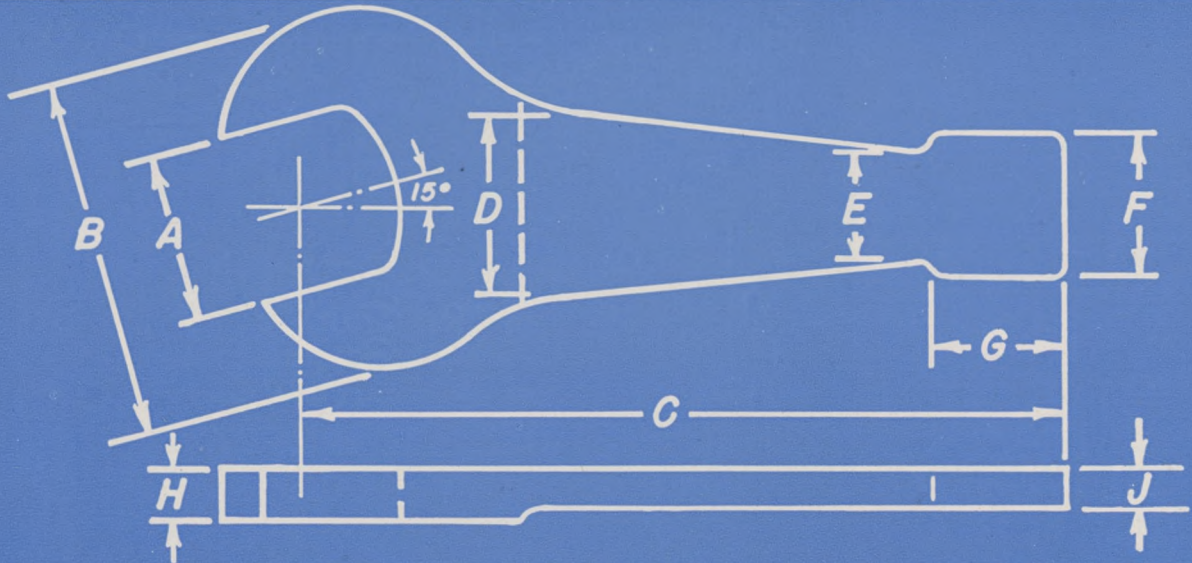


Nº	A	B	C	D	E	F	G	H	J	K
SWH 64	2	$3\frac{5}{8}$	$9\frac{1}{4}$	$1\frac{13}{16}$	$1\frac{3}{8}$	2	$2\frac{1}{8}$	$11\frac{1}{16}$	1	1
" 70	$2\frac{3}{16}$	$4\frac{1}{8}$	10	$2\frac{1}{16}$	$1\frac{1}{2}$	$2\frac{3}{16}$	$2\frac{1}{4}$	$12\frac{1}{16}$	1	1
" 76	$2\frac{3}{8}$	$4\frac{1}{2}$	$10\frac{3}{4}$	$2\frac{1}{4}$	$1\frac{5}{8}$	$2\frac{3}{8}$	$2\frac{3}{8}$	13	1	1
" 82	$2\frac{9}{16}$	$4\frac{5}{8}$	$11\frac{1}{2}$	$2\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{9}{16}$	$2\frac{1}{2}$	$13\frac{3}{4}$	$1\frac{5}{8}$	$1\frac{1}{2}$
" 88	$2\frac{3}{4}$	$4\frac{3}{4}$	$12\frac{1}{4}$	$2\frac{3}{8}$	$1\frac{7}{8}$	$2\frac{3}{4}$	$2\frac{5}{8}$	$14\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{3}{8}$
" 94	$2\frac{15}{16}$	5	13	$2\frac{1}{2}$	2	$2\frac{13}{16}$	$2\frac{3}{4}$	$15\frac{1}{2}$	$1\frac{5}{4}$	$1\frac{3}{4}$
" 100	$3\frac{1}{8}$	$5\frac{1}{8}$	$14\frac{3}{8}$	$2\frac{9}{16}$	$2\frac{1}{8}$	$3\frac{1}{16}$	$2\frac{7}{8}$	$16\frac{15}{16}$	$1\frac{5}{8}$	$1\frac{3}{8}$
" 112	$3\frac{1}{2}$	$5\frac{3}{4}$	$15\frac{3}{4}$	$2\frac{7}{8}$	$2\frac{1}{4}$	$3\frac{1}{4}$	3	$16\frac{5}{8}$	$1\frac{5}{8}$	$1\frac{1}{4}$
" 124	$3\frac{7}{8}$	$6\frac{1}{2}$	$17\frac{1}{8}$	$3\frac{1}{4}$	$2\frac{3}{8}$	$3\frac{7}{16}$	$3\frac{1}{8}$	$20\frac{3}{8}$	$1\frac{5}{8}$	$1\frac{1}{4}$
" 136	$4\frac{1}{4}$	$6\frac{3}{4}$	$18\frac{1}{2}$	$3\frac{3}{8}$	$2\frac{1}{2}$	$3\frac{5}{8}$	$3\frac{1}{4}$	$21\frac{7}{8}$	$1\frac{5}{8}$	$1\frac{1}{4}$
" 148	$4\frac{5}{8}$	$7\frac{3}{8}$	$19\frac{7}{8}$	$3\frac{11}{16}$	$2\frac{5}{8}$	$3\frac{13}{16}$	$3\frac{3}{8}$	$23\frac{9}{16}$	$1\frac{5}{8}$	$1\frac{1}{4}$
" 160	5	8	$21\frac{1}{4}$	4	$2\frac{3}{4}$	4	$3\frac{1}{2}$	$25\frac{1}{4}$	2	$1\frac{1}{2}$
" 172	$5\frac{3}{8}$	$8\frac{1}{4}$	$22\frac{5}{8}$	$4\frac{3}{8}$	$2\frac{7}{8}$	$4\frac{3}{16}$	$3\frac{5}{8}$	27	2	$1\frac{1}{2}$
" 184	$5\frac{3}{4}$	$9\frac{1}{8}$	24	$4\frac{11}{16}$	3	$4\frac{3}{8}$	$3\frac{3}{4}$	$28\frac{9}{16}$	2	$1\frac{1}{2}$
" 196	$6\frac{1}{8}$	$9\frac{3}{8}$	$25\frac{3}{8}$	$4\frac{11}{16}$	$3\frac{1}{8}$	$4\frac{9}{16}$	$3\frac{7}{8}$	$30\frac{1}{16}$	2	$1\frac{1}{2}$
" 208	$6\frac{1}{2}$	$9\frac{3}{4}$	$26\frac{3}{4}$	$4\frac{7}{8}$	$3\frac{1}{4}$	$4\frac{3}{4}$	4	$31\frac{5}{8}$	2	$1\frac{1}{2}$
" 220	$6\frac{7}{8}$	$10\frac{1}{2}$	$28\frac{1}{8}$	$5\frac{1}{4}$	$3\frac{3}{8}$	$4\frac{15}{16}$	$4\frac{1}{8}$	$33\frac{3}{8}$	$2\frac{3}{4}$	2
" 232	$7\frac{1}{4}$	$11\frac{1}{8}$	$29\frac{1}{2}$	$5\frac{9}{16}$	$3\frac{1}{2}$	$5\frac{1}{8}$	$4\frac{1}{4}$	$35\frac{1}{16}$	$2\frac{3}{4}$	2
" 244	$7\frac{5}{8}$	$11\frac{3}{4}$	$30\frac{7}{8}$	$5\frac{7}{8}$	$3\frac{5}{8}$	$5\frac{5}{16}$	$4\frac{3}{8}$	$36\frac{3}{4}$	$2\frac{3}{4}$	2
" 256	8	$11\frac{7}{8}$	$32\frac{1}{4}$	$5\frac{13}{16}$	$3\frac{3}{4}$	$5\frac{1}{2}$	$4\frac{1}{2}$	$38\frac{3}{16}$	$2\frac{3}{4}$	2
" 268	$8\frac{3}{8}$	$12\frac{1}{2}$	$33\frac{1}{2}$	$6\frac{1}{4}$	$3\frac{7}{8}$	$5\frac{11}{16}$	$4\frac{3}{4}$	$39\frac{3}{8}$	$2\frac{3}{4}$	2
" 280	$8\frac{3}{4}$	$13\frac{1}{8}$	$34\frac{7}{8}$	$6\frac{9}{16}$	4	$5\frac{7}{8}$	5	$41\frac{7}{16}$	$2\frac{3}{4}$	2
" 292	$9\frac{1}{8}$	$13\frac{3}{4}$	36	$6\frac{7}{8}$	$4\frac{1}{8}$	$6\frac{1}{16}$	$5\frac{1}{2}$	$42\frac{7}{8}$	$2\frac{3}{4}$	2

The wrenches illustrated above are not carried in stock and are built only on special order. They are available in hexagon or 12 point (double hex) openings and the specifications are flexible. Any size within or greater than the above range can be furnished in a variety of lengths and thicknesses. Prices on application.

WHEN ORDERING BE SURE TO SPECIFY 12 POINT OR HEXAGON OPENINGS

MODEL SWO SPECIFICATIONS



Nº	A	B	C	D	E	F	G	H	J
SWO 64	2	4 $\frac{1}{4}$	9 $\frac{1}{4}$	1 $\frac{13}{16}$	1 $\frac{3}{8}$	2	2 $\frac{1}{8}$	1	1
" 70	2 $\frac{3}{16}$	4 $\frac{1}{2}$	10	1 $\frac{7}{8}$	1 $\frac{1}{2}$	2 $\frac{3}{16}$	2 $\frac{1}{4}$	1	1
" 76	2 $\frac{3}{8}$	4 $\frac{7}{8}$	10 $\frac{3}{4}$	2 $\frac{1}{8}$	1 $\frac{5}{8}$	2 $\frac{3}{8}$	2 $\frac{3}{8}$	1	1
" 82	2 $\frac{9}{16}$	5 $\frac{1}{4}$	11 $\frac{1}{2}$	2 $\frac{1}{4}$	1 $\frac{3}{4}$	2 $\frac{9}{16}$	2 $\frac{1}{2}$	1 $\frac{5}{8}$	1 $\frac{3}{8}$
" 88	2 $\frac{3}{4}$	5 $\frac{1}{2}$	12 $\frac{1}{4}$	2 $\frac{3}{8}$	1 $\frac{7}{8}$	2 $\frac{3}{4}$	2 $\frac{5}{8}$	1 $\frac{3}{4}$	1 $\frac{3}{8}$
" 94	2 $\frac{15}{16}$	6 $\frac{1}{8}$	13	2 $\frac{5}{8}$	2	2 $\frac{13}{16}$	2 $\frac{3}{4}$	1 $\frac{5}{8}$	1 $\frac{3}{8}$
" 100	3 $\frac{1}{8}$	6 $\frac{1}{2}$	14 $\frac{3}{8}$	2 $\frac{13}{16}$	2 $\frac{1}{8}$	3 $\frac{1}{16}$	2 $\frac{7}{8}$	1 $\frac{3}{4}$	1 $\frac{3}{8}$
" 112	3 $\frac{1}{2}$	7 $\frac{1}{4}$	15 $\frac{3}{4}$	3 $\frac{5}{16}$	2 $\frac{1}{4}$	3 $\frac{1}{4}$	3	1 $\frac{5}{8}$	1 $\frac{1}{4}$
" 124	3 $\frac{7}{8}$	8	17 $\frac{1}{8}$	3 $\frac{1}{2}$	2 $\frac{3}{8}$	3 $\frac{7}{16}$	3 $\frac{1}{8}$	1 $\frac{5}{8}$	1 $\frac{1}{4}$
" 136	4 $\frac{1}{4}$	8 $\frac{7}{8}$	18 $\frac{1}{2}$	3 $\frac{7}{8}$	2 $\frac{1}{2}$	3 $\frac{5}{8}$	3 $\frac{1}{4}$	1 $\frac{5}{8}$	1 $\frac{1}{4}$
" 148	4 $\frac{5}{8}$	9 $\frac{3}{4}$	19 $\frac{7}{8}$	4 $\frac{3}{16}$	2 $\frac{5}{8}$	3 $\frac{13}{16}$	3 $\frac{3}{8}$	1 $\frac{5}{8}$	1 $\frac{1}{4}$
" 160	5	10 $\frac{3}{8}$	21 $\frac{1}{4}$	4 $\frac{1}{2}$	2 $\frac{3}{4}$	4	3 $\frac{1}{2}$	2	1 $\frac{1}{2}$
" 172	5 $\frac{3}{8}$	11 $\frac{1}{4}$	22 $\frac{5}{8}$	4 $\frac{7}{8}$	2 $\frac{7}{8}$	4 $\frac{3}{16}$	3 $\frac{5}{8}$	2	1 $\frac{1}{2}$
" 184	5 $\frac{3}{4}$	12	24	5 $\frac{1}{4}$	3	4 $\frac{3}{8}$	3 $\frac{3}{4}$	2	1 $\frac{1}{2}$
" 196	6 $\frac{1}{8}$	12 $\frac{7}{8}$	25 $\frac{3}{8}$	5 $\frac{5}{8}$	3 $\frac{1}{8}$	4 $\frac{9}{16}$	3 $\frac{7}{8}$	2	1 $\frac{1}{2}$
" 208	6 $\frac{1}{2}$	13 $\frac{5}{8}$	26 $\frac{3}{4}$	6	3 $\frac{1}{4}$	4 $\frac{3}{4}$	4	2	1 $\frac{1}{2}$
" 220	6 $\frac{7}{8}$	14 $\frac{3}{8}$	28 $\frac{1}{8}$	6 $\frac{1}{4}$	3 $\frac{3}{8}$	4 $\frac{15}{16}$	4 $\frac{1}{8}$	2 $\frac{3}{4}$	2
" 232	7 $\frac{1}{4}$	15 $\frac{1}{4}$	29 $\frac{1}{2}$	6 $\frac{5}{8}$	3 $\frac{1}{2}$	5 $\frac{1}{8}$	4 $\frac{1}{4}$	2 $\frac{3}{4}$	2
" 244	7 $\frac{5}{8}$	16	30 $\frac{7}{8}$	7	3 $\frac{5}{8}$	5 $\frac{5}{16}$	4 $\frac{3}{8}$	2 $\frac{3}{4}$	2
" 256	8	16 $\frac{3}{4}$	32 $\frac{1}{4}$	7 $\frac{3}{8}$	3 $\frac{3}{4}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$	2 $\frac{3}{4}$	2
" 268	8 $\frac{3}{8}$	17 $\frac{1}{2}$	33 $\frac{1}{8}$	7 $\frac{3}{4}$	3 $\frac{7}{8}$	5 $\frac{11}{16}$	4 $\frac{3}{4}$	2 $\frac{3}{4}$	2
" 280	8 $\frac{3}{4}$	18 $\frac{1}{4}$	34 $\frac{7}{8}$	8	4	5 $\frac{7}{8}$	5	2 $\frac{3}{4}$	2
" 292	9 $\frac{1}{8}$	19 $\frac{1}{4}$	36	8 $\frac{3}{8}$	4 $\frac{1}{8}$	6 $\frac{1}{16}$	5 $\frac{1}{2}$	2 $\frac{3}{4}$	2

Open-end striking wrenches are available within or greater than the above range of sizes. These wrenches are not carried in stock and are built only on special order. Designs and prices will be submitted on application.

MASTER SERIES HEAVY DUTY BOX WRENCHES

The OTC Master Series Heavy Duty Box Wrenches are the finest tools of this type available. Made in three styles, straight, 15° offset and double offset and ranging in size from $\frac{7}{8}$ " to $3\frac{1}{8}$ ", they offer a complete range from which to select the tools best suited to your needs.

The 12 point, accurately broached openings eliminate the danger of the wrench slipping, spreading or twisting when extreme pressure is applied.

Made of high grade alloy steel and accurately heat-treated, they are light but sufficiently strong to do the toughest nut turning jobs. In addition to doing the work of clumsy standard stock tools, they take the place of numerous, special hand forged wrenches.

The improved handle stop and positive safety locking feature incorporated in these wrenches, make them the safest possible tools to use. On a hard pull there is absolutely no danger of the handle turning on the stub end of the wrench, or slipping off.

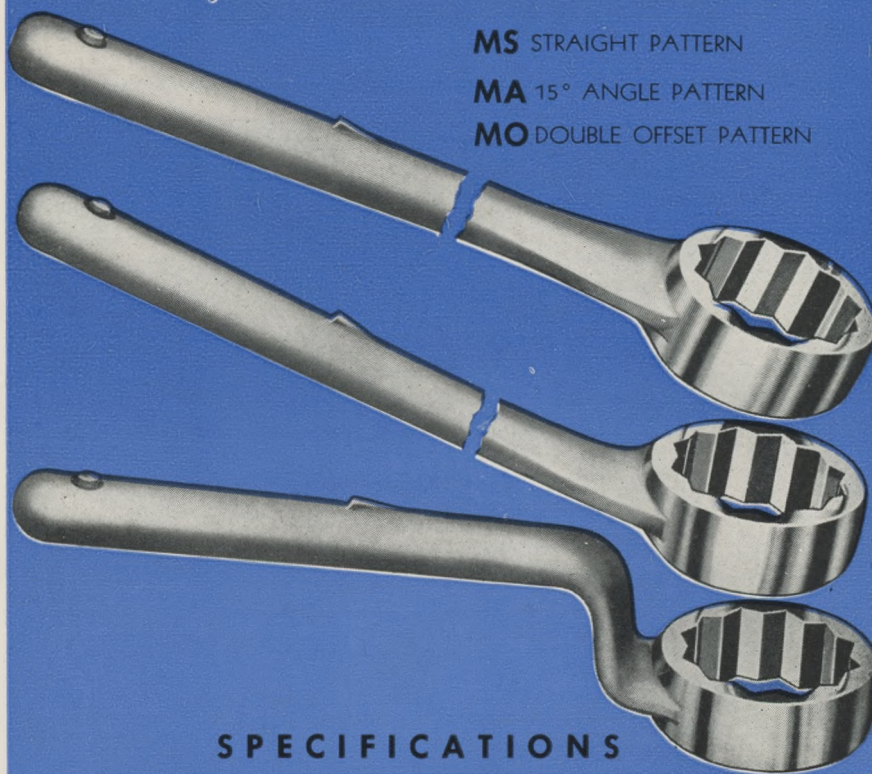
Seamless steel Tubular Handles in only three sizes are needed to fit the 60 different wrench heads.

All wrenches are finished in heavy Cadmium plate with highly polished heads.



TUBULAR HANDLES FOR MASTER BOX WRENCHES

Seamless, steel tubular handles are required to fit all sizes. Built to withstand excessive pressure they provide the necessary leverage for these large size wrenches. A special locking device allows each handle to be used interchangeably with different size wrenches.



SPECIFICATIONS

Opening Size	Head Thickness	Shank Size	For Handle No.	Straight		15° Offset		Double Offset	
				No.	Weight Lb. Oz.	No.	Weight Lb. Oz.	No.	Weight Lb. Oz.
$\frac{7}{8}$ "	$\frac{11}{16}$ "	$\frac{7}{8}$ "	M-28	MS-28	1 2	MA-28	1 2	MO-28	1 2
$1\frac{1}{16}$ "	$\frac{11}{16}$ "	$\frac{7}{8}$ "	M-28	MS-30	1 2	MA-30	1 2	MO-30	1 2
1"	$\frac{11}{16}$ "	$\frac{7}{8}$ "	M-28	MS-32	1 2	MA-32	1 2	MO-32	1 2
$1\frac{1}{16}$ "	$\frac{11}{16}$ "	$\frac{7}{8}$ "	M-28	MS-34	1 3	MA-34	1 3	MO-34	1 3
$1\frac{1}{8}$ "	$\frac{11}{16}$ "	$\frac{7}{8}$ "	M-28	MS-36	1 4	MA-36	1 4	MO-36	1 4
$1\frac{1}{4}$ "	$\frac{11}{16}$ "	$\frac{7}{8}$ "	M-28	MS-40	1 5	MA-40	1 5	MO-40	1 5
$1\frac{5}{16}$ "	$\frac{11}{16}$ "	$\frac{7}{8}$ "	M-28	MS-42	1 6	MA-42	1 6	MO-42	1 6
$1\frac{3}{8}$ "	$\frac{11}{16}$ "	$\frac{7}{8}$ "	M-28	MS-44	1 8	MA-44	1 8	MO-44	1 8
$1\frac{7}{16}$ "	$\frac{13}{16}$ "	$\frac{7}{8}$ "	M-28	MS-46	1 10	MA-46	1 10	MO-46	1 10
$1\frac{1}{2}$ "	$\frac{13}{16}$ "	$\frac{7}{8}$ "	M-28	MS-48	1 12	MA-48	1 12	MO-48	1 12
$1\frac{5}{8}$ "	1"	1"	M-32	MS-52	2 5	MA-52	2 5	MO-52	2 5
$1\frac{11}{16}$ "	1"	1"	M-32	MS-54	2 7	MA-54	2 7	MO-54	2 7
$1\frac{3}{4}$ "	1"	1"	M-32	MS-56	2 7	MA-56	2 7	MO-56	2 7
$1\frac{13}{16}$ "	$\frac{11}{16}$ "	1"	M-32	MS-58	2 10	MA-58	2 10	MO-58	2 10
$1\frac{7}{8}$ "	$\frac{11}{16}$ "	1"	M-32	MS-60	3	MA-60	3	MO-60	3
2"	$\frac{11}{8}$ "	1"	M-32	MS-64	3	MA-64	3	MO-64	3
$2\frac{1}{16}$ "	$\frac{11}{8}$ "	1"	M-32	MS-70	3	MA-70	3	MO-70	3
$2\frac{1}{4}$ "	$\frac{11}{4}$ "	1"	M-32	MS-72	3 5	MA-72	3 5	MO-72	3 5
$2\frac{3}{8}$ "	$\frac{15}{8}$ "	$1\frac{1}{8}$ "	M-36	SD-76	6 2	.....	.....	.....	.....
$2\frac{3}{8}$ "	$\frac{11}{2}$ "	$1\frac{1}{8}$ "	M-36	MS-76	4 3	.....	.....	.....	.....
$2\frac{9}{16}$ "	$\frac{11}{2}$ "	$1\frac{1}{8}$ "	M-36	MS-82	4 12	.....	.....	.....	.....
$2\frac{3}{4}$ "	$\frac{11}{2}$ "	$1\frac{1}{8}$ "	M-36	MS-88	5	.....	.....	.....	.....
$2\frac{15}{16}$ "	$\frac{11}{2}$ "	$1\frac{1}{8}$ "	M-36	MS-94	5 3	.....	.....	.....	.....
$3\frac{1}{8}$ "	$\frac{11}{2}$ "	$1\frac{1}{8}$ "	M-36	MS-100	5 8	.....	.....	.....	.....

*Hexagon opening for use with No. 1006 Grip-o-matic Puller.

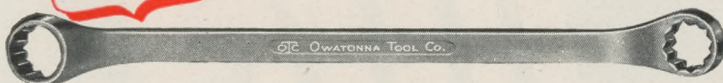


Handle No.	Length	Outside Diameter	Inside Diameter	Weight
M-28	24"	$1\frac{1}{8}$ "	$\frac{7}{8}$ "	$2\frac{3}{4}$ lbs.
M-32	30"	$1\frac{1}{4}$ "	1"	4 lbs.
M-36	36"	$1\frac{1}{2}$ "	$1\frac{1}{8}$ "	8 lbs.



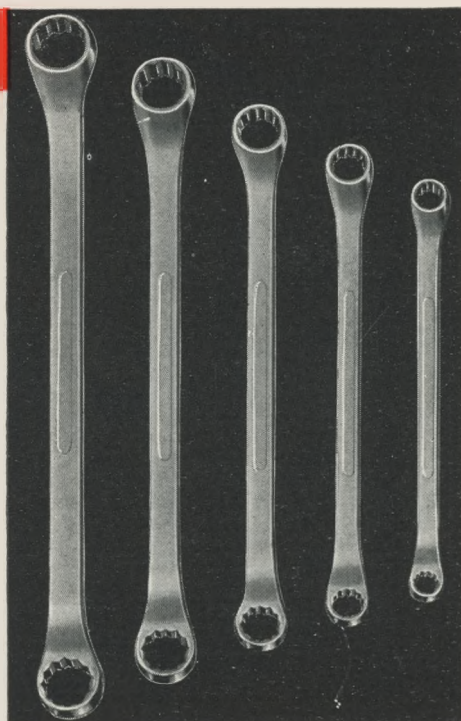
BOX WRENCHES

45° OFFSET PATTERN



Double offset or 45° pattern box wrenches are offered in six different combinations. This is a very popular type wrench designed to clear obstructions and give clearance around the nut to be turned. Thin side walls and depth of wrench head offset makes it possible to reach countersunk or imbedded nuts which might otherwise be inaccessible. Each end is chamfered on both top and bottom so the wrench can be used either way.

Wrench No.	Size Openings	For U. S. Std. Nuts	For Hex. Cap Screws	For S. A. E. Nuts and Cap Screws	Length	Weight per Doz. Lbs. Ozs.
B-1214	$\frac{3}{8}$ " x $\frac{7}{16}$ "	...	$\frac{3}{16}$ " - $\frac{1}{4}$ "	$\frac{1}{4}$ "	$7\frac{1}{2}$ "	1 8
B-1618	$\frac{1}{2}$ " x $\frac{9}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ " - $\frac{3}{8}$ "	$\frac{5}{16}$ " - $\frac{3}{8}$ "	$8\frac{3}{4}$ "	3 ..
B-2022	$\frac{5}{8}$ " x $\frac{11}{16}$ "	...	$\frac{7}{16}$ "	$\frac{7}{16}$ "	10"	4 8
B-2425	$\frac{3}{4}$ " x $\frac{25}{32}$ "	...	$\frac{1}{2}$ "	$\frac{1}{2}$ "	11 $\frac{1}{4}$ "	6 ..
B-2628	$\frac{13}{16}$ " x $\frac{7}{8}$ "	...	$\frac{9}{16}$ " - $\frac{5}{8}$ "	$\frac{9}{16}$ "	12 $\frac{3}{4}$ "	7 8
B-3032	$\frac{15}{16}$ " x 1"	...	$\frac{3}{4}$ "	$\frac{5}{8}$ " - $\frac{11}{16}$ "	14 $\frac{1}{2}$ "	12 8



Three sets of Box Wrenches are available in this series and these sets are assembled without any duplication of sizes.

No. BA-3 Set contains B-1214, B-1618, B-2022. Wt. $\frac{3}{4}$ lbs.

No. BA-4 Set contains B-1214, B-1618, B-2022, B-2425. Wt. $1\frac{1}{4}$ lbs.

No. BA-5 Set contains B-1214, B-1618, B-2022, B-2425, B-2628. Wt. 2 lbs.

No. BA-6 Set contains B-1214, B-1618, B-2022, B-2425, B-2628, B-3032. Wt. 3 lbs.

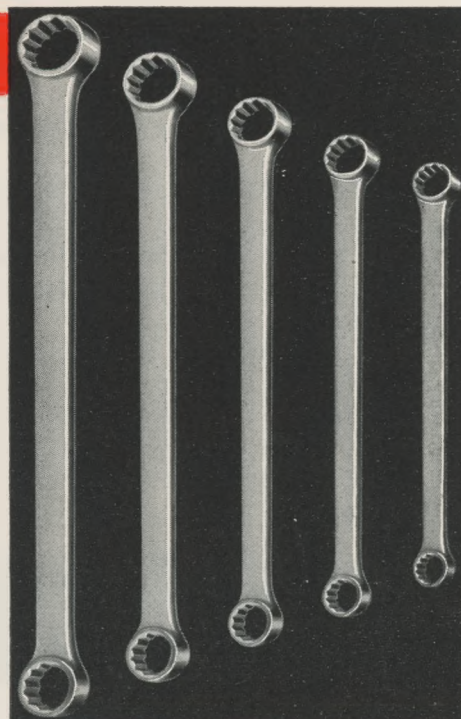
BOX WRENCHES

15° OFFSET PATTERN



Clearance for knuckles and power at the nut without a tendency to tip or slip off when pressure is applied are features of this OTC 15° offset box wrench. Extremely handy in close places and on some jobs are more practical than the 45° offset pattern. An all-around utility wrench perfectly balanced, with thin side walls to provide maximum accessibility. Drop-forged, heat-treated over all and accurately machined.

Wrench No.	Size Openings	For U. S. Std. Nuts	For Hex. Cap Screws	For S. A. E. Nuts and Cap Screws	Length	Weight per Doz. Lbs. Ozs.
1214	$\frac{3}{8}$ " x $\frac{7}{16}$ "	...	$\frac{3}{16}$ " - $\frac{1}{4}$ "	$\frac{1}{4}$ "	$7\frac{3}{8}$ "	1 12
1618	$\frac{1}{2}$ " x $\frac{9}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ " - $\frac{3}{8}$ "	$\frac{5}{16}$ " - $\frac{3}{8}$ "	$8\frac{1}{4}$ "	2 6
1820	$\frac{9}{16}$ " x $\frac{5}{8}$ "	...	$\frac{3}{8}$ " - $\frac{7}{16}$ "	$\frac{3}{8}$ " - $\frac{7}{16}$ "	$9\frac{1}{4}$ "	3 12
2022	$\frac{5}{8}$ " x $\frac{11}{16}$ "	...	$\frac{7}{16}$ "	$\frac{7}{16}$ "	$10\frac{1}{2}$ "	4 6
2024	$\frac{5}{8}$ " x $\frac{3}{4}$ "	...	$\frac{7}{16}$ " - $\frac{1}{2}$ "	$\frac{7}{16}$ " - $\frac{1}{2}$ "	$10\frac{1}{2}$ "	5 10
2428	$\frac{3}{4}$ " x $\frac{7}{8}$ "	$\frac{1}{2}$ "	$\frac{1}{2}$ " - $\frac{5}{8}$ "	$\frac{1}{2}$ " - $\frac{5}{8}$ "	12"	6 8
3032	$\frac{15}{16}$ " x 1"	...	$\frac{3}{4}$ "	$\frac{5}{8}$ " - $\frac{11}{16}$ "	13 $\frac{3}{4}$ "	12 2



Several sets of wrenches in the 15° offset pattern are available. These sets are assembled to provide popular combinations of sizes. Duplications in sizes occur only in those sizes which are most frequently used.

No. A-3 Set contains 1214, 1618, 2022. Wt. $\frac{3}{4}$ lbs.

No. A-4 Set contains 1214, 1618, 1820, 2024. Wt. $1\frac{1}{4}$ lbs.

No. A-5 Set contains 1214, 1618, 2022, 2428, 3032. Wt. 2 lbs.

No. A-6 Set contains 1214, 1618, 1820, 2024, 2428, 3032. Wt. 3 lbs.



An improved wrench which combines all the good features of a box wrench with the practical usefulness of a universal socket. These wrenches have become extremely popular with maintenance men in every industry.

OTC Flex Head Wrenches are the most versatile and popular wrenches of this type ever built. The wrench head flexes to any position within a 180° radius permitting many difficult jobs in hard-to-get-at places. The socket is held in working position with a compression ball and spring and the sockets are closely coupled for maximum clearance.

The sockets are extra deep forged, thin and straight walled to give maximum clearance and readily reach those sunken nuts which are not easily accessible to an ordinary wrench.



No.	Sizes	Length	Slot	Wt.
CS-1214	$\frac{3}{8}$ " - $\frac{7}{16}$ "	$5\frac{3}{4}$ "	$\frac{3}{16}$ " - $\frac{1}{4}$ "	2 oz.
CS-1618	$\frac{1}{2}$ " - $\frac{9}{16}$ "	$6\frac{7}{8}$ "	$\frac{5}{16}$ " - $\frac{3}{8}$ "	3 oz.
CS-2022	$\frac{5}{8}$ " - $\frac{11}{16}$ "	8"	$\frac{7}{16}$ " - $\frac{9}{16}$ "	4 oz.

This wrench prevents rounding off and damaging the corners of soft brass nuts.

This is an ideal wrench for aircraft, automotive, tractor and industrial maintenance work and is equally effective on production lines. Handles are drop-forged and the sockets are hot-forged for strength and durability.

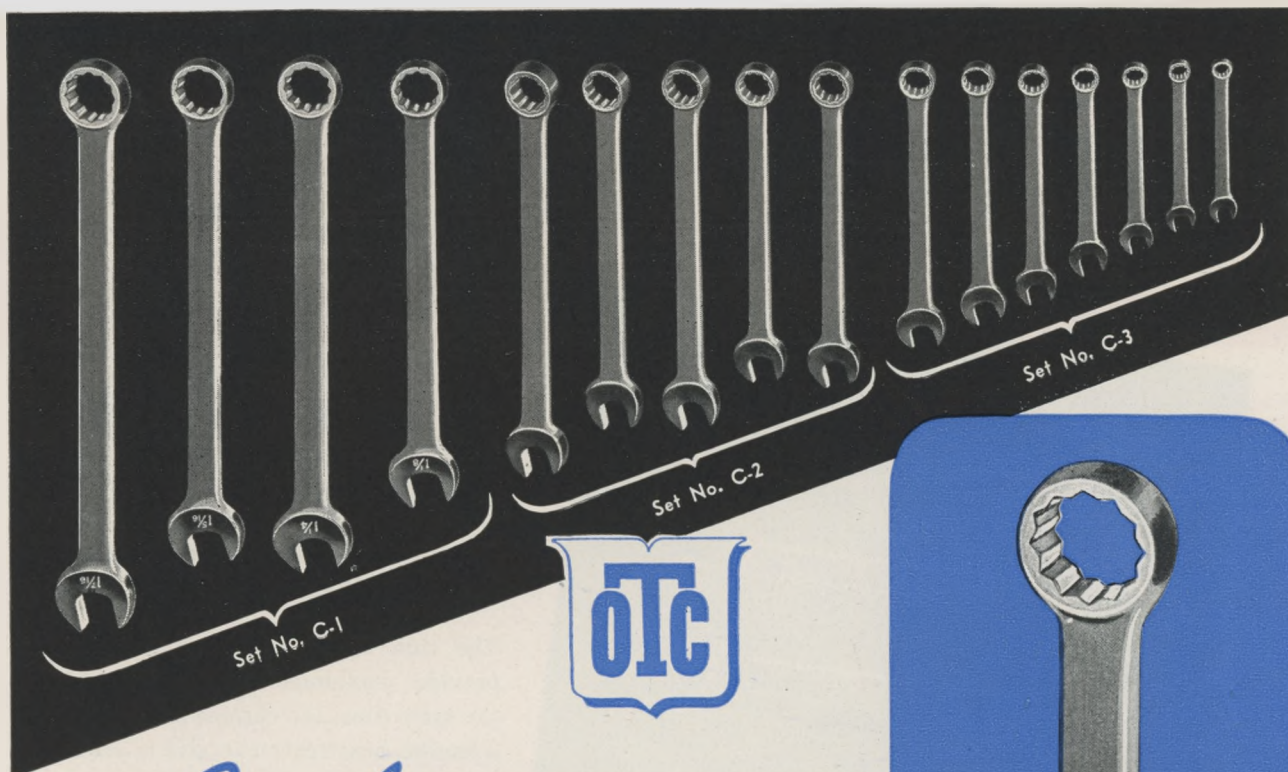
No.	Sizes	Length	Wt.
F-1214	$\frac{3}{8}$ " - $\frac{7}{16}$ "	$6\frac{1}{4}$ "	3 oz.
F-1618	$\frac{1}{2}$ " - $\frac{9}{16}$ "	$7\frac{1}{2}$ "	5 oz.
F-1820	$\frac{5}{8}$ " - $\frac{11}{16}$ "	$8\frac{1}{2}$ "	7 oz.
F-2022	$\frac{5}{8}$ " - $\frac{11}{16}$ "	10"	10 oz.
F-2224	$\frac{11}{16}$ " - $\frac{3}{4}$ "	$9\frac{3}{4}$ "	12 oz.
F-2628	$\frac{13}{16}$ " - $\frac{7}{8}$ "	$10\frac{3}{4}$ "	1 lb.
F-3032	$\frac{15}{16}$ " - 1"	12"	$1\frac{1}{4}$ lbs.

No. F-25 Set contains F-1214, F-1618, F-1820, F-2224, F-2628. Wt. $2\frac{1}{2}$ lbs.

COUPLING WRENCHES

A set of three wrenches that will be a valuable addition to any mechanic's tool kit. Particularly useful in aviation work, these wrenches are equally as good for automotive and tractor maintenance. They are designed to operate on flare nuts over tubing and will get into close places. Very practical on fuel lines, oil and vacuum lines on aircraft, refrigerators, air conditioning units, etc. Not guaranteed.

No. CS-3—Set of 3 wrenches. Wt. $\frac{3}{4}$ lb.



Combination WRENCHES

A complete range of combination open-end and box-end wrenches provides the advantages of both types of wrenches in one unit. The open end is set at an angle of 15° and the box end has a 15° offset to give adequate clearance. Having both ends the same size allows the operator to alternate where the occasion requires it.

These wrenches ranging in size from $\frac{3}{8}$ " to $1\frac{1}{16}$ " can be used on all types of maintenance work from carburetors and electrical units to heavy tractors and machine tools. Each wrench is drop-forged from Chrome Molybdenum steel and fully heat-treated over all to give strength and long life under the most exacting conditions.

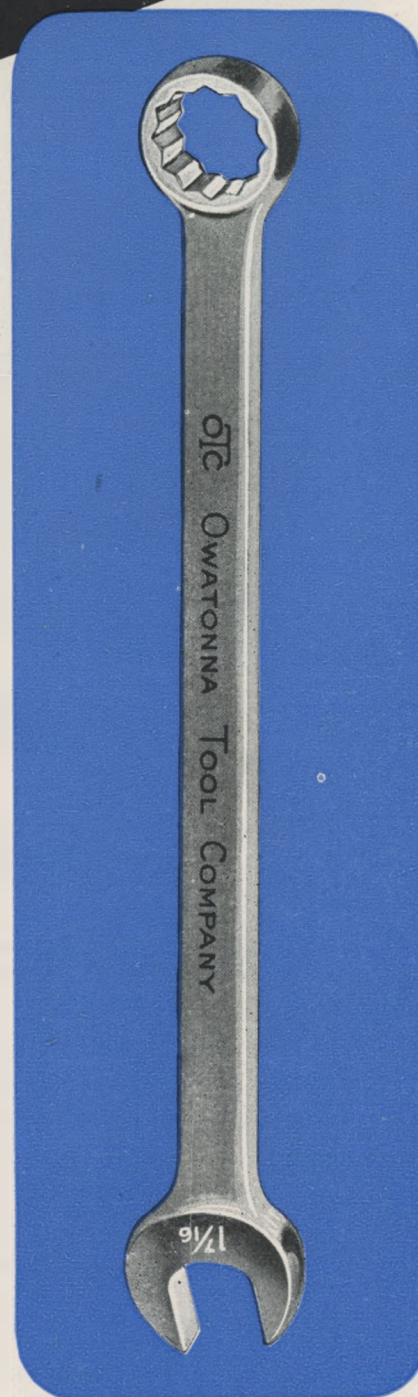
Available as individual wrenches or in popular sets as follows:

No. C-1 set includes C-36, $1\frac{1}{8}$ ", C-40, $1\frac{1}{4}$ ", C-42, $1\frac{5}{16}$ " and C-46, $1\frac{7}{16}$ ".
Wt. 11 lbs.

No. C-2 Set includes C-26, $\frac{13}{16}$ ", C-28, $\frac{7}{8}$ ", C-30, $\frac{15}{16}$ ", C-32, 1" and C-34, $1\frac{1}{16}$ ". Wt. 6 lbs.

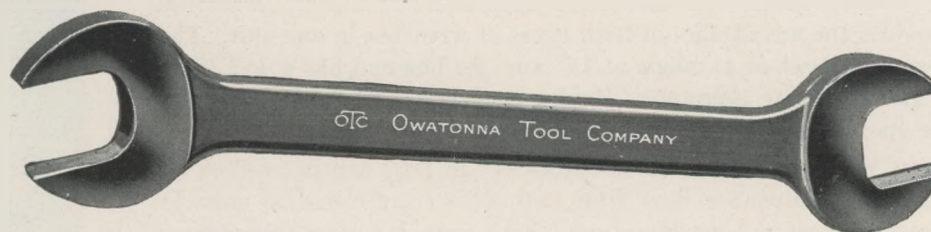
No. C-3 Set includes C-12, $\frac{3}{8}$ ", C-14, $\frac{7}{16}$ ", C-16, $\frac{1}{2}$ ", C-18, $\frac{9}{16}$ ", C-20, $\frac{5}{8}$ ", C-22, $\frac{11}{16}$ ", C-24, $\frac{3}{4}$ ". Wt. $1\frac{3}{4}$ lbs.

No.	Size	Length	Weight	No.	Size	Length	Weight
C-12	$\frac{3}{8}$ "	5"	1 oz.	C-28	$\frac{7}{8}$ "	11"	13 oz.
C-14	$\frac{7}{16}$ "	$5\frac{3}{8}$ "	2 oz.	C-30	$\frac{15}{16}$ "	13"	$1\frac{1}{4}$ lbs.
C-16	$\frac{1}{2}$ "	6"	3 oz.	C-32	1"	13"	$1\frac{1}{4}$ lbs.
C-18	$\frac{9}{16}$ "	$6\frac{3}{4}$ "	3 oz.	C-34	$1\frac{1}{16}$ "	15"	$1\frac{3}{4}$ lbs.
C-20	$\frac{5}{8}$ "	$7\frac{3}{4}$ "	5 oz.	C-36	$1\frac{1}{8}$ "	15"	$1\frac{3}{4}$ lbs.
C-22	$\frac{11}{16}$ "	$8\frac{5}{8}$ "	6 oz.	C-40	$1\frac{1}{4}$ "	18"	$2\frac{3}{4}$ lbs.
C-24	$\frac{3}{4}$ "	$9\frac{1}{2}$ "	8 oz.	C-42	$1\frac{3}{8}$ "	18"	$2\frac{3}{4}$ lbs.
C-26	$\frac{13}{16}$ "	11"	13 oz.	C-46	$1\frac{7}{16}$ "	21"	$3\frac{3}{4}$ lbs.





OPEN END WRENCHES



OTC open-end engineers wrenches are designed especially for the automotive, aircraft and industrial maintenance field after engineering research and diligent development work made possible a design that would fit their needs.

The thin heads and pear-shaped jaws provide maximum accessibility and at the same time, the chrome alloy steel and scientific heat treatment give a resulting strength that is far out of proportion to the size of the wrench. These wrenches are well-balanced with openings that are accurately machined to exact tolerances to assure a perfect fit. You will like the "feel" of an OTC open end wrench.

OPEN END WRENCH SETS

Several sets of open-end wrenches are available to provide a range of combinations to suit maintenance men regardless of the type of work done. These sets have been assembled to provide a minimum of duplication. Where duplications are made they are in sizes which are the most popular in combination with other sizes.

No. ES-5 Set contains E-1214, E-1618, E-2022, E-2428, E-3032. Wt. 2 lbs.

No. ES-6 Set contains E-1416, E-1619, E-1820, E-2225, E-2428, E-3032. Wt. 2½ lbs.

No. ES-7 Set contains E-1214, E-1618, E-1619, E-2024, E-2225, E-2428, E-3032. Wt. 2¾ lbs.

No. ES-8 Set contains E-1012, E-1416, E-1820, E-2022, E-2225, E-2428, E-3032, E-3436. Wt. 3 lbs.

SPECIFICATIONS

Wrench No.	Size Openings	For S. A. E. Nuts and Cap Screws	Head Thickness	Length	Weight per Doz. Lbs. Ozs.
E-1012	5/16" x 3/8"	...	5/32"	4"	1 ..
E-1214	3/8" x 7/16"	... - 1/4"	3/16"	5"	1 ..
E-1416	7/16" x 1/2"	1/4" - 5/16"	13/64"	6 1/4"	2 4
E-1618	1/2" x 9/16"	5/16" - 3/8"	15/64"	6 3/4"	2 8
E-1619	1/2" x 19/32"	1/4" - ...	15/64"	6 3/4"	2 8
E-1820	9/16" x 5/8"	... - 7/16"	1/4"	7 1/8"	3 6
E-2022	5/8" x 1 1/16"	7/16" - ...	5/16"	8 1/4"	3 10
E-2024	5/8" x 3/4"	7/16" - 1/2"	5/16"	8 1/4"	3 10
E-2225	1 1/16" x 25/32"	...	5/16"	8 1/4"	3 12
E-2428	3/4" x 7/8"	1/2" - 9/16"	23/64"	9 3/8"	5 10
E-2426	3/4" x 1 1/16"	1/2" - ...	23/64"	9 3/8"	5 10
E-3032	15/16" x 1"	5/8" - 11/16"	27/64"	10 5/8"	7 8
E-3436	1 1/16" x 1 1/8"	3/4" - ...	31/64"	12"	18 ..



Improved TAPPET WRENCHES

Newly designed in the streamlined fashion the improved OTC Tappet Wrenches are built for looks as well as utility. They are well-balanced, easy to handle and are ideal for all around tappet adjusting operations. They are $9\frac{1}{2}$ " long as recommended by automotive service men, with thin, narrow, pear-shaped heads machined to fine accuracy.

Wrench openings are accurately machined to size with the opening set at a 15° angle from the handle. They are deep enough to firmly grip the tappet nut and still allow maximum turning radius without interference from obstructions.

OTC tappet wrenches are drop-forged from Chrome-Vanadium steel and scientifically heat-treated to obtain maximum strength and hardness. Chrome plated with heads highly polished.



TAPPET SETS

No.	Sizes	Length	Wt.
O-1416	$\frac{7}{16}$ " - $\frac{1}{2}$ "	$9\frac{1}{2}$ "	3 oz.
O-1618	$\frac{1}{2}$ " - $\frac{9}{16}$ "	$9\frac{1}{2}$ "	3 oz.
O-2022	$\frac{5}{8}$ " - $\frac{11}{16}$ "	$9\frac{1}{2}$ "	4 oz.
O-2428	$\frac{3}{4}$ " - $\frac{7}{8}$ "	$9\frac{1}{2}$ "	4 oz.

Three sets are available to provide the proper range of sizes for every purpose.

No. O-7 Set contains 2 each O-1416, O-1618. Wt. 1 lb.

No. O-9 Set contains 2 each O-1416, O-1618, O-2022. Wt. $1\frac{1}{2}$ lbs.

No. O-10 Set contains 2 each O-1416, O-1618, O-2022, O-2428. Wt. 2 lbs.

Extra Length

$12\frac{1}{2}$ " LONG



15° ANGLE

Designed especially for use on Plymouth, Dodge, DeSoto and other late model cars where adjustments must be made from underneath the car. These wrenches are single-end, long enough to

Tappet Wrenches

clear obstructions and strong enough to do the job.

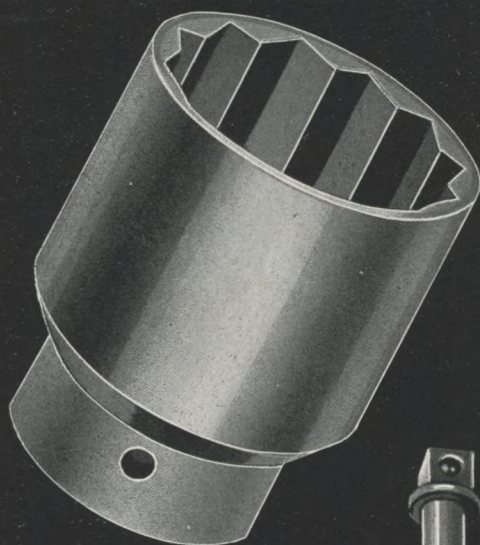
The thin, pear-shaped heads permit easy access into tight places. Drop-forged from Chrome Alloy steel and heat-treated overall.

No.	Size	Lgth.	Wt.	No.	Size	Lgth.	Wt.
O-12	$\frac{3}{8}$ "	$12\frac{1}{2}$ "	4 oz.	O-18	$\frac{9}{16}$ "	$12\frac{1}{2}$ "	4 oz.
O-14	$\frac{1}{2}$ "	$12\frac{1}{2}$ "	4 oz.	O-20	$\frac{5}{8}$ "	$12\frac{1}{2}$ "	5 oz.
O-16	$\frac{1}{2}$ "	$12\frac{1}{2}$ "	4 oz.	O-22	$\frac{11}{16}$ "	$12\frac{1}{2}$ "	5 oz.
O-17	$\frac{17}{32}$ "	$12\frac{1}{2}$ "	4 oz.				



HEAVY DUTY SOCKETS

3/4" SQUARE DRIVE — STRAIGHT WALLS



Thin, straight-wall sockets, hot-forged from Chrome Vanadium steel and the last word in design and quality will appeal to every discriminating mechanic. These sockets are accurately machined and finely finished. They are light yet are rugged enough for severe use. No maintenance man working on truck, tractor, or industrial work can afford to be without a set of these fine tools.

Wrench No.	Opening Size	Length	Outside Diameter		Weight per Doz.	
			Socket End	Drive End	Lbs.	Ozs.
328	7/8"	1 3/4"	1 3/8"	1 7/8"	4	8
330	1 1/16"	1 13/16"	1 3/8"	1 7/8"	4	8
332	1"	2"	1 3/8"	1 3/8"	4	8
334	1 1/16"	2 1/16"	1 7/16"	1 7/16"	5	4
336	1 1/8"	2 1/8"	1 3/8"	1 1/2"	6	4
338	1 3/16"	2 1/8"	1 3/8"	1 5/8"	6	12
340	1 1/4"	2 3/16"	1 7/16"	1 43/64"	7	8
342	1 5/16"	2 3/16"	1 1/2"	1 47/64"	9	12
344	1 3/8"	2 3/16"	1 17/32"	1 13/16"	10	8
346	1 7/16"	2 3/4"	1 19/32"	1 57/64"	11	4
348	1 1/2"	2 3/16"	1 21/32"	1 63/64"	12	..
352	1 5/8"	2 3/8"	1 21/32"	2 3/16"	15	..
354	1 11/16"	2 3/8"	1 11/16"	2 1/4"	18	..
356	1 3/4"	2 1/2"	1 23/32"	2 5/16"	18	..
358	1 13/16"	2 13/16"	1 3/4"	2 3/4"	21	..
360	1 7/8"	2 7/8"	1 25/32"	2 31/64"	24	..
364	2"	3"	1 13/16"	2 23/64"	27	..
368	2 1/8"	3 1/16"	2"	2 55/64"	30	..
370	2 3/16"	3 1/8"	2"	2 59/64"	33	..
372	2 1/4"	3 3/16"	2"	2 63/64"	39	..
376	2 3/8"	3 5/8"	2 1/4"	3 1/4"	42	..

HEAVY DUTY EXTENSIONS

3/4" Square Drive

OTC Heavy Duty Extensions are upset-forged from high alloy steel and will not twist or bend. They are necessities in every socket set and are furnished in popular lengths.

No. H-374—Extension 18" long. Wt. 2 lbs.

No. H-373—Extension 10" long. Wt. 1 1/2 lbs.

No. H-371—Extension 4 1/2" long. Wt. 12 oz.

SLIDING TEE HANDLE

3/4" Square Drive

Used with Heavy Duty Extensions this handle makes a good speed T-wrench for spinning nuts on and off. Very practical in all kinds of maintenance work. Indispensable in every heavy duty socket set.

No. H-387—Sliding Tee Handle 20" long. Wt. 3 lbs.

HEAVY DUTY RATCHET

3/4" Square Drive



One of the lightest, strongest and toughest heavy duty ratchets built. Well balanced and designed for fast, efficient work on heavy equipment. Its small head and 36 teeth permit its use in tight places and a short throw can be obtained. Four dogs always in engagement provide plenty of strength to withstand its 20" of leverage. Fully sealed against grit and grease.

No. H-361—Heavy Duty Ratchet, 20" long. Wt. 4 lbs.

H-387

H-371

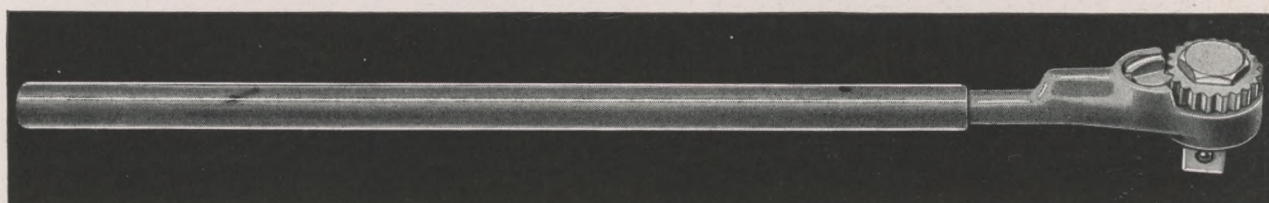
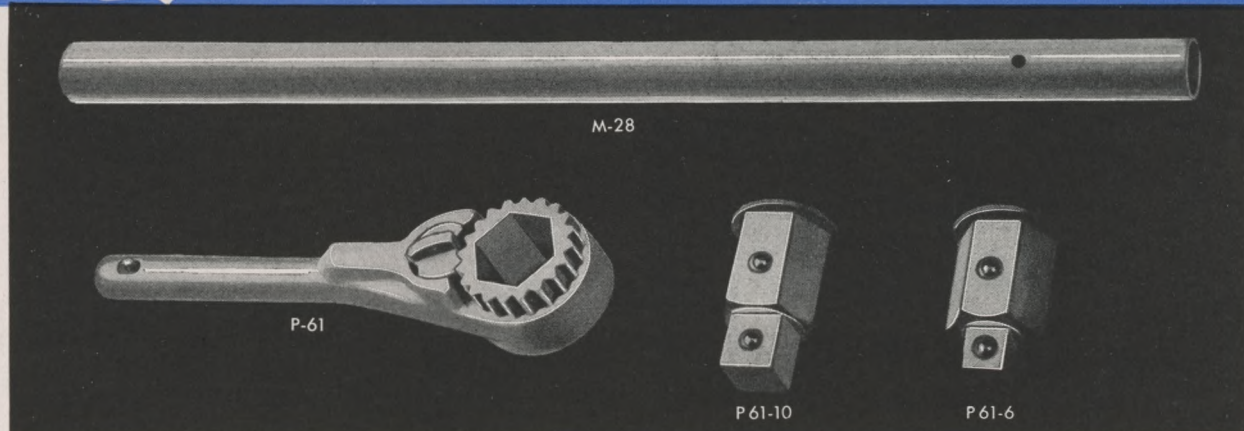
H-373

H-374



HEAVY DUTY REVERSIBLE RATCHET

NUMBER P-61



This Heavy Duty Reversible Ratchet is a dual duty tool. It has a $1\frac{1}{2}$ " hexagon opening which permits its use on a $1\frac{1}{2}$ " hex. nut over a shaft and for conventional use. Two adaptors can be purchased with this ratchet which adapt it for use with detachable sockets. The No. P61-6 is $1\frac{1}{2}$ " hex. x $\frac{3}{4}$ " square for $\frac{3}{4}$ " drive sockets and the No. P61-10 is $1\frac{1}{2}$ " hex. x 1" square for use with 1" drive sockets.

To obtain maximum leverage a tubular handle is available and should be purchased with the ratchet head. The lower photograph above shows the tool in an assembled condition with the P61-6 plug and M-28 handle. The combinations possible with this wrench make it ideal for tractor and industrial main-

tenance work. The head is drop-forged from high alloy steel and is rugged enough to stand years of hard service. The Tubular Handle is seamless steel tubing and is very strong.

This ratchet is also especially good for use with the No. 930 and 938 Push-Pullers on page 8.

No. P-61—Reversible Ratchet Head (only).

Wt. $5\frac{1}{2}$ lbs.

No. P61-6—Adaptor $1\frac{1}{2}$ " hex. x $\frac{3}{4}$ " square.

Wt. $1\frac{1}{2}$ lbs.

No. P61-10—Adaptor $1\frac{1}{2}$ " hex. x 1" square.

Wt. $1\frac{1}{4}$ lbs.

No. M-28—Tubular Handle, 24" long. Wt. $2\frac{3}{4}$ lbs.

HEAVY DUTY FLEX HANDLE

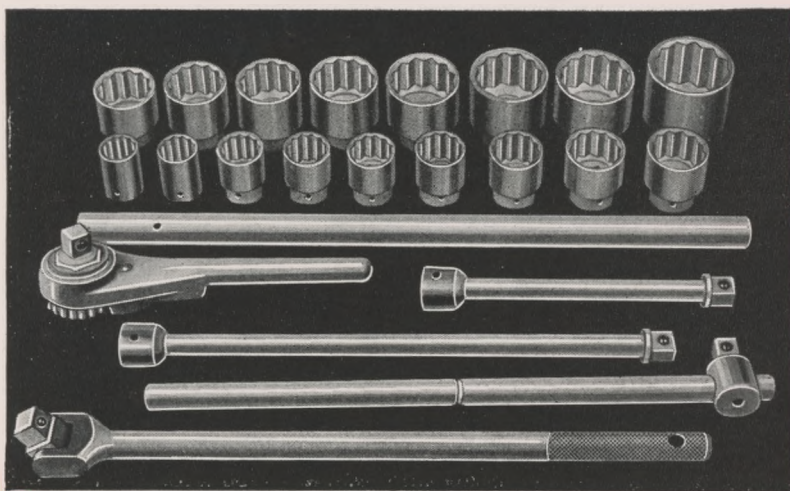
A well balanced, ruggedly constructed socket handle that cannot be matched for work on main bearings, con rods, head bolts and other maintenance work on trucks, tractors and industrial machinery of all kinds. It is light and



No. H-377

easy to handle yet strong and sturdy enough to withstand hard usage. It is 20" long, drop-forged from Chrome Alloy Steel and heat-treated over all for long service

No. H-377—Flex Handle. Wt. $3\frac{1}{2}$ lbs.



HEAVY DUTY SOCKET SET

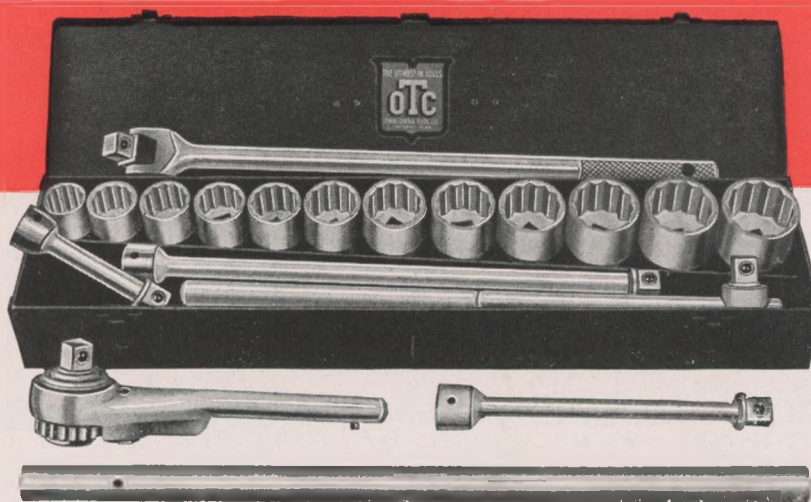
No. HD-388

$\frac{3}{4}$ " Square Drive

A complete new socket set which covers a complete range of sizes and which includes the popular P-61 Reversible Ratchet. This set has all the necessary handles plus a range of socket sizes that are essential for truck, tractor or industrial maintenance operations. It consists of 24 units with the metal case as follows: 334, $1\frac{1}{16}$ "; 336, $1\frac{1}{8}$ "; 340, $1\frac{1}{4}$ "; 342, $1\frac{5}{16}$ "; 344, $1\frac{3}{8}$ ";

346, $1\frac{7}{16}$ "; 348, $1\frac{1}{2}$ "; 352, $1\frac{5}{8}$ "; 354, $1\frac{11}{16}$ "; 356, $1\frac{3}{4}$ "; 358, $1\frac{13}{16}$ "; 360, $1\frac{7}{8}$ "; 364, 2"; 368, $2\frac{1}{8}$ "; 370, $2\frac{3}{16}$ "; 372, $2\frac{1}{4}$ "; 376, $2\frac{3}{8}$ "; P-61 Ratchet with P-61-6 Adaptor, M-28 Tubular Handle, H-377 Flex Handle, H-387 Sliding Tee Handle, H-373, 10" Extension, H-374, 18" Extension in the H-396 Metal Case which is $24\frac{1}{2}$ " x 9" x $3\frac{1}{2}$ ".

No. HD-388—Heavy Duty Socket Set, complete in Case. Wt. 51 lbs.



HEAVY DUTY SOCKET SET

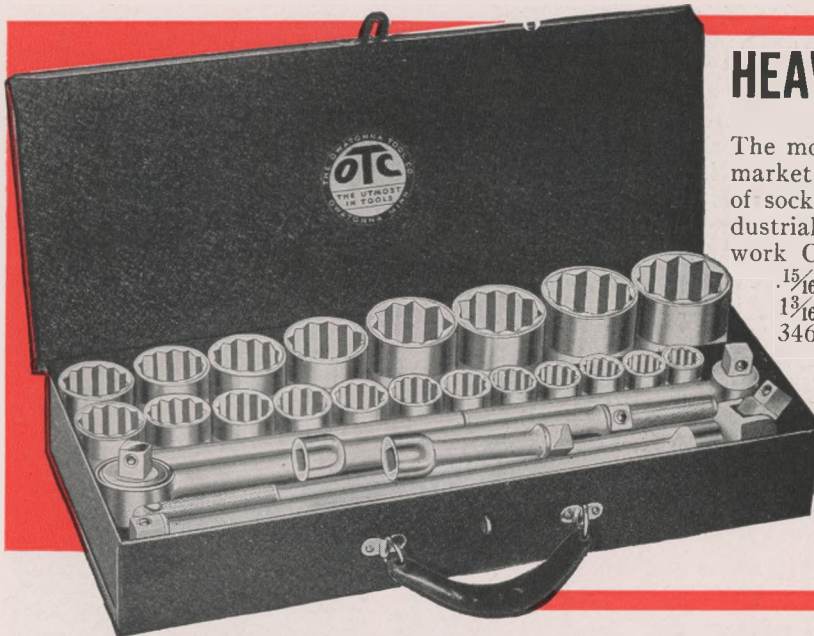
No. HD-382

$\frac{3}{4}$ " Square Drive

A utility Heavy Duty Socket set that has been assembled especially for truck and tractor work. It carries 12 sizes of sockets which were selected because they are most frequently used in this type of maintenance work. This set consists of 20 units including 12 sockets: 336, $1\frac{1}{8}$ "; 340, $1\frac{1}{4}$ "; 342, $1\frac{5}{16}$ "; 344, $1\frac{3}{8}$ "; 346, $1\frac{7}{16}$ ";

348, $1\frac{1}{2}$ "; 352, $1\frac{5}{8}$ "; 354, $1\frac{11}{16}$ "; 356, $1\frac{3}{4}$ "; 358, $1\frac{13}{16}$ "; 360, $1\frac{7}{8}$ "; 364, 2"; H-387 Sliding Tee Handle, H-377 Flex Handle, P-61 Reversible Ratchet with P-61-6 Adaptor Plug, M-28 Tubular Handle, H-371, $4\frac{1}{2}$ " Extension, H-373, 10" Extension, H-374, 18" Extension in the H-391 Metal Case which is 26" x $5\frac{1}{2}$ " x 3".

No. HD-382—Socket Set in Metal Case. Wt. 38 lbs.



HEAVY DUTY SET HD-385

$\frac{3}{4}$ " SQUARE DRIVE

The most complete Heavy Duty set on the market today. It carries a complete range of sockets and handles and is ideal for industrial, farm implement and automotive work. Consists of 21 sockets:

328, $\frac{7}{8}$ "; 330, $\frac{15}{16}$ "; 332, 1"; 334, $1\frac{1}{16}$ "; 336, $1\frac{1}{8}$ "; 338, $1\frac{3}{16}$ "; 340, $1\frac{1}{4}$ "; 342, $1\frac{5}{16}$ "; 344, $1\frac{3}{8}$ "; 346, $1\frac{7}{16}$ "; 348, $1\frac{1}{2}$ "; 352, $1\frac{5}{8}$ "; 354, $1\frac{11}{16}$ "; 356, $1\frac{3}{4}$ "; 358, $1\frac{13}{16}$ "; 360, $1\frac{7}{8}$ "; 364, 2"; 368, $2\frac{1}{8}$ "; 370, $2\frac{3}{16}$ "; 372, $2\frac{1}{4}$ "; H-361 Ratchet, H-377 Flex Handle, H-387 Tee Handle and Extensions H-371, $4\frac{1}{2}$ "; H-373, 10"; H-374, 18" in the H-396 Metal Case which is $24\frac{1}{2}$ " x 9" x $3\frac{1}{2}$ ".

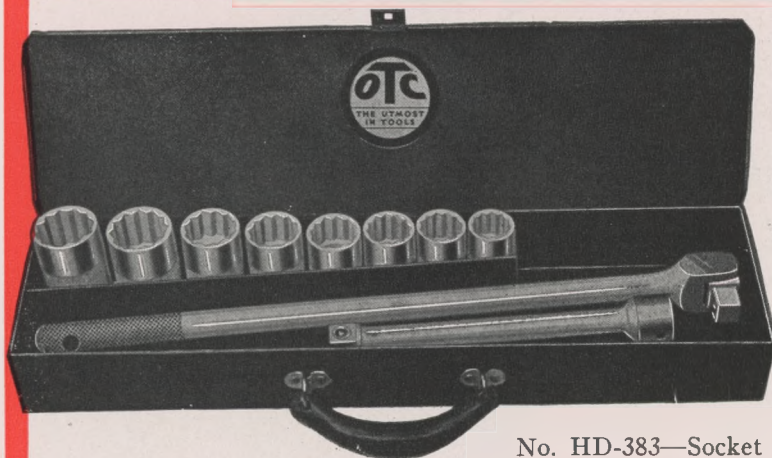
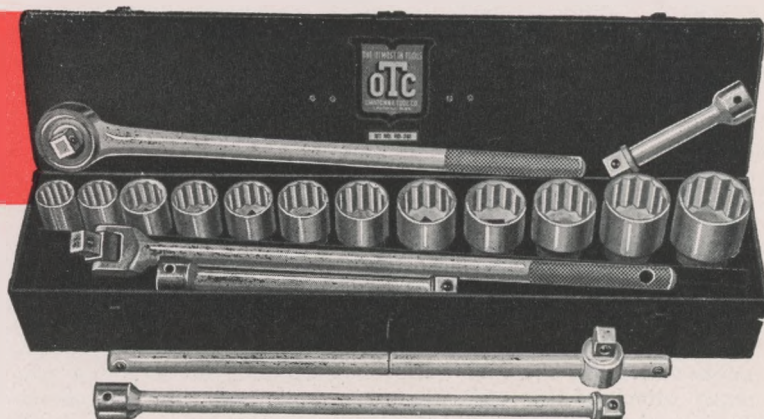
No. HD-385—Socket Set complete in Metal Case. Wt. 51 lbs.

HEAVY DUTY SOCKET SET

NUMBER HD-381

$\frac{3}{4}$ " SQUARE DRIVE

A very complete combination that would be practical in any shop doing heavy maintenance work. Only the popular sizes of sockets are included but the set can be added to as the need arises. Contains 12 sockets: 334, $1\frac{1}{16}$ "; 336, $1\frac{1}{8}$ "; 340, $1\frac{1}{4}$ "; 342, $1\frac{5}{16}$ "; 344, $1\frac{3}{8}$ "; 346, $1\frac{7}{16}$ "; 348, $1\frac{1}{2}$ "; 352, $1\frac{5}{8}$ "; 354, $1\frac{11}{16}$ "; 356, $1\frac{3}{4}$ "; 358, $1\frac{13}{16}$ "; 364, 2"; H-361 Ratchet, H-387 Sliding Tee Handle, H-377 Flex Handle, H-371, $4\frac{1}{2}$ " Extension, H-373, 10" Extension, H-374, 18" Extension in the H-391 Metal Case which is 26" x $5\frac{1}{2}$ " x 3". No. HD-381—Socket Set complete in Metal Case. Wt. 35 lbs.



NO. HD-383 SOCKET SET

$\frac{3}{4}$ " SQUARE DRIVE

A compact utility heavy duty socket set that includes eight most popular sizes and two most popular handle units. A good set to start with as it can be added to as demands require. Contains 8 sockets: 334, $1\frac{1}{16}$ "; 336, $1\frac{1}{8}$ "; 338, $1\frac{3}{16}$ "; 340, $1\frac{1}{4}$ "; 342, $1\frac{5}{16}$ "; 344, $1\frac{3}{8}$ "; 346, $1\frac{7}{16}$ "; 348, $1\frac{1}{2}$ " with the H-377 Flex Handle and H-373, 10" Extension in Metal Case No. H-397 which is $21\frac{1}{2}$ " x $5\frac{1}{2}$ " x $2\frac{1}{2}$ ".

No. HD-383—Socket Set in Metal Case. Wt. 15 lbs.

OTC 12 POINT STANDARD SOCKETS

1/2" SQUARE DRIVE

OTC thin-wall, straight sockets, hot forged of chrome Vanadium steel are recognized throughout the world as the ultimate in design, quality and workmanship. The hot-forging process increases strength, permits a thinner wall and is more accurate as to size. This, of course, makes for greater operating efficiency, longer life and increased value. Years of research and experimentation have gone into these sockets to build a product that has the unqualified recommendation of every maintenance man who has ever used it.

Wrench No.	Opening Size	Length	Outside Diameter		Weight per Doz.	
			Socket End	Drive End	Lbs.	Ozs.
112	3/8"	1 1/2"	9/16"	7/8"	1	8
114	7/16"	1 1/4"	5/8"	7/8"	1	8
116	1/2"	1 3/4"	45/64"	7/8"	1	8
118	9/16"	1 5/8"	23/32"	7/8"	1	8
119	19/32"	1 5/8"	13/16"	7/8"	1	8
120	5/8"	1 3/8"	7/8"	7/8"	1	8
121	21/32"	1 3/8"	15/16"	15/16"	1	8
122	17/16"	1 1/2"	15/16"	15/16"	1	8
124	3/4"	1 1/2"	15/16"	1"	1	8
125	25/32"	1 1/2"	15/16"	1"	1	10
126	17/16"	1 9/16"	15/16"	1 5/64"	2	4
128	7/8"	1 5/8"	1 1/32"	1 5/32"	2	4
130	15/16"	1 41/64"	1"	1 15/64"	3	..
131	31/32"	1 1/2"	1"	1 1/4"	3	12
132	1"	1 11/16"	1"	1 5/16"	3	12
134	1 1/16"	1 3/4"	1 1/32"	1 7/16"	4	2
136	1 1/8"	1 13/16"	1 1/16"	1 31/64"	5	..
138	1 1/16"	1 7/8"	1 1/8"	1 37/64"	6	..
140	1 1/4"	1 15/16"	1 1/8"	1 11/16"	7	2

OTC EXTRA LENGTH SOCKETS

3 1/4" LONG, 1/2" SQUARE DRIVE

Especially designed for shackle, spring clip and body bolts on automobiles, trucks and heavy equipment, but practical on many other jobs as well. Straight walls and thin enough to get into tight places.

No.	Size	Length	Outside Diameter		Wt.
			Socket End	Drive End	
L-116	1/2"	3"	43/64"	3/8"	5 oz.
L-118	9/16"	3"	13/16"	7/8"	4 oz.
*L-120	5/8"	3"	7/8"	7/8"	4 oz.
†L-122	11/16"	3"	15/16"	15/16"	4 oz.
L-124	3/4"	3"	1 1/32"	1 5/32"	5 oz.
L-134	1 1/16"	3 1/4"	1 1/8"	1 1/8"	10 oz.

No. L-6—Set of above 6 sizes. Wt. 2 lbs.

* For 10 MM A-C 104 Series Spark Plug.

† For 10 MM Auto-Lite & Champion Spark Plugs.

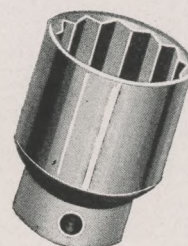
OTC SPARK PLUG SOCKETS

1/2" SQUARE DRIVE (FORMERLY WITH "P" PREFIX)

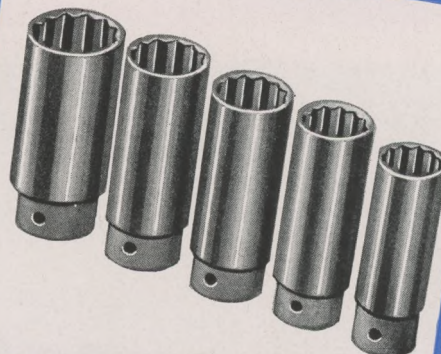
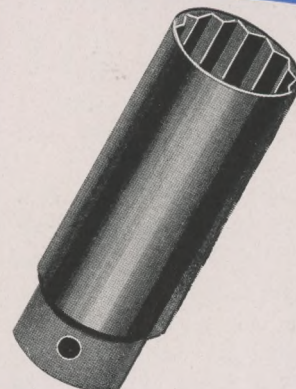
Sturdy, thin wall sockets, accurately broached and designed especially for Spark Plug use. They eliminate danger of cracking enamel or distorting the plugs.

No.	Size	Length	Outside Diameter		Wt.
			Socket End	Drive End	
L-126	13/16"	3"	1 1/16"	31/32"	4 oz.
L-128	7/8"	3 1/4"	1 11/64"	63/64"	6 oz.
L-130	15/16"	3 1/4"	1 1/4"	1 5/64"	7 oz.
L-132	1"	3 1/4"	1 1/8"	1 1/8"	10 oz.
L-136	1 1/8"	3 1/4"	1 1/2"	1 1/8"	12 oz.

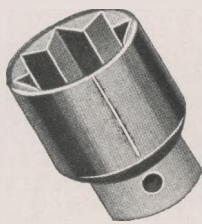
No. L-5—Spark Plug Set of 5 above, in special Metal Case. Wt. 3 lbs.



OTC



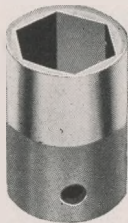
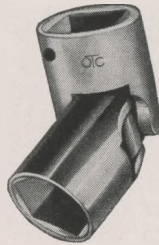
OTC Sockets are individually heat-treated in electrically controlled furnaces to insure uniformity of strength and toughness. They can be purchased with confidence and the full assurance that there is no better socket made.



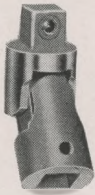
Valuable additions to any socket set. Particularly useful on farm machinery but practical on any machines using square head bolts and nuts. The double-square opening

permits a short throw and makes inaccessible nuts easy to reach.

Hexagon universal sockets are available in three most popular sizes. Especially practical for head bolts, motor base nuts, timing gear covers, starter bolts, etc. Close coupled and sturdily built for long service.



Six popular sizes are available in this type sockets. Hot forging permits thin walls, yet assures great strength, and longer life than can be expected from a 12 point socket. Accurately broached and finely finished.



UNIVERSAL JOINT

$\frac{1}{2}$ " Square Drive

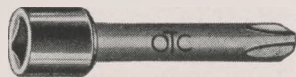
A necessary part of every socket set that adds to the utility and practical efficiency of every other part of the set. Used with extensions or speed handles it permits doing jobs in inaccessible places and provides clearance otherwise impossible to obtain. It is $2\frac{3}{8}$ " long overall and will break over at nearly right angles.

H-189—Universal Joint. Wt. 4 oz.

PHILLIPS SCREW DRIVER ATTACHMENTS

$\frac{1}{2}$ " Square Drive

For use with any standard $\frac{1}{2}$ " drive socket handle these drivers will be found useful on door hinges and many other places where these screws are used on automobiles, trucks, tractors, aircraft, etc. Built of alloy steel and heat-treated.



No.	Point No.	Length	Wt.
H-165	2	3"	2 oz.
H-166	3	3"	2 oz.
H-167	4	3"	2 oz.

EIGHT POINT SOCKETS

$\frac{1}{2}$ " Square Drive

Wrench No.	Opening Size	Length	Outside Diameter		Weight per Doz. Lbs. Ozs.	
			Socket End	Drive End		
S-114	$\frac{7}{16}$ "	$1\frac{3}{16}$ "	$\frac{55}{64}$ "	$\frac{55}{64}$ "	1	8
S-116	$\frac{1}{2}$ "	$1\frac{3}{16}$ "	$\frac{55}{64}$ "	$\frac{55}{64}$ "	1	8
S-118	$\frac{9}{16}$ "	$1\frac{7}{32}$ "	$\frac{15}{16}$ "	$\frac{35}{64}$ "	1	8
S-120	$\frac{5}{8}$ "	$1\frac{3}{16}$ "	$\frac{13}{16}$ "	$\frac{15}{16}$ "	2	4
S-122	$1\frac{1}{16}$ "	$1\frac{3}{8}$ "	$1\frac{9}{64}$ "	$1\frac{31}{32}$ "	2	4
S-124	$\frac{3}{4}$ "	$1\frac{7}{16}$ "	$1\frac{15}{64}$ "	1"	3	
S-126	$\frac{13}{16}$ "	$1\frac{7}{16}$ "	$\frac{13}{16}$ "	$1\frac{1}{32}$ "	4	8
S-128	$\frac{7}{8}$ "	$1\frac{19}{32}$ "	$1\frac{13}{32}$ "	$1\frac{1}{32}$ "	6	
S-132	1"	$1\frac{3}{4}$ "	$\frac{15}{8}$ "	$1\frac{1}{8}$ "	7	8
S-134	$1\frac{1}{16}$ "	$1\frac{7}{8}$ "	$1\frac{47}{64}$ "	$1\frac{13}{16}$ "	8	4

HEXAGON UNIVERSAL SOCKETS

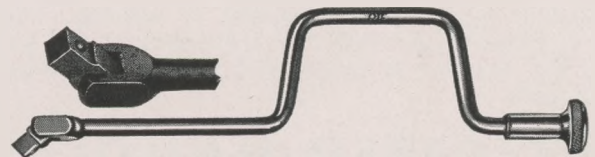
$\frac{1}{2}$ " Square Drive

No.	Size	Length	Outside Diameter		Wt.
			Socket End	Drive End	
U-118	$\frac{9}{16}$ "	$2\frac{3}{16}$ "	$\frac{25}{32}$ "	$\frac{15}{16}$ "	3 oz.
U-120	$\frac{5}{8}$ "	$2\frac{3}{16}$ "	$\frac{7}{8}$ "	$\frac{13}{16}$ "	3 oz.
U-122	$1\frac{1}{16}$ "	$2\frac{3}{16}$ "	$1\frac{1}{32}$ "	$1\frac{13}{16}$ "	3 oz.

HEXAGON SOCKETS

$\frac{1}{2}$ " Square Drive

Wrench No.	Opening Size	Length	Outside Diameter		Weight per Doz. Lbs. Ozs.	
			Socket End	Drive End		
D-114	$\frac{7}{16}$ "	$1\frac{1}{4}$ "	$\frac{5}{8}$ "	$\frac{7}{8}$ "	..	12
D-116	$\frac{1}{2}$ "	$1\frac{1}{32}$ "	$\frac{45}{64}$ "	$\frac{7}{8}$ "	..	12
D-118	$\frac{9}{16}$ "	$1\frac{5}{16}$ "	$\frac{25}{32}$ "	$\frac{7}{8}$ "	..	12
D-120	$\frac{5}{8}$ "	$1\frac{3}{8}$ "	$\frac{7}{8}$ "	$\frac{7}{8}$ "	1	8
D-122	$1\frac{1}{16}$ "	$1\frac{7}{16}$ "	$\frac{15}{16}$ "	$1\frac{15}{16}$ "	1	8
D-124	$\frac{3}{4}$ "	$1\frac{15}{32}$ "	$1\frac{1}{64}$ "	$1\frac{15}{16}$ "	1	8



FLEX SPEED HANDLE

$\frac{1}{2}$ " Square Drive

This handle combines the best feature of the Flex handle with that of a speeder to make a very practical unit. Leverage to tighten or loosen the toughest nut—speed to spin them on or off. 16" long.

No. H-185—Flex Speeder. Wt. $2\frac{1}{2}$ lbs.

OTC TIE ROD SOCKETS

$\frac{1}{2}$ " Square Drive



For use in adjusting tie rod, drag link and shock absorbers screws. Practical units which should be included in every socket set.

No.	Bit	Weight
127	$\frac{13}{16}$ "	2 oz.
129	$\frac{15}{16}$ "	2 oz.

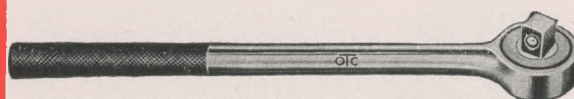
OTC 24 TOOTH RATCHET

1/2" Square Drive

A smooth working ratchet with 24 teeth and four dogs always in engagement to provide extra strength with an extremely short throw. This ratchet is fully enclosed to keep out dirt and grease and it will not wedge or stick. Equipped with a "push-through" type plug and built for long satisfactory service.

No. H-161—Standard Ratchet, complete. Wt. 1 1/4 lbs.

No. H-162—Ratchet Plug (only)



No.	Length	Head Dia.	Head Thickness	Wt.
H-161	10 1/2"	1 13/16"	1 1/16"	1 1/4 lbs

OTC FLEX RATCHET

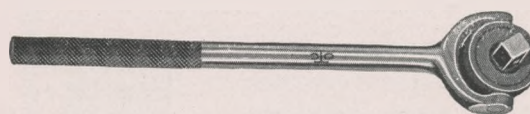
1/2" Square Drive

A radical innovation in socket wrench handles. It combines all the good features of a flex handle with those of a 24-tooth ratchet. Will do many difficult jobs that the conventional ratchet cannot do.

No. H-160—Flex Ratchet 12" long.

Wt. 1 1/2 lbs.

No. H-162—Ratchet Plug (only)



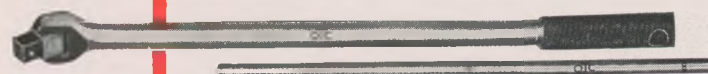
No.	Length	Head Dia.	Head Thickness	Weight
H-160	12"	2 3/16"	2 1/32"	1 1/4 lbs.

OTC FLEX HANDLES

OTC Flex Handles are built for long service and at the same time are well-balanced tools easy to handle. Typical OTC construction gives them that additional strength so often required for tough jobs. Drop-forged and heat-treated overall. Built of Chrome Vanadium steel.

EXTENSIONS: 1/2" SQUARE DRIVE

OTC Extensions are heat-treated and built of Chrome Vanadium steel to resist bending or twisting. They are essential components of every socket set and provide the clearance so necessary on all kind of maintenance work.

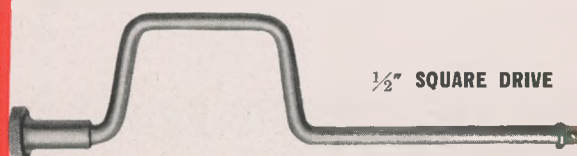


1/2" SQUARE DRIVE

No.	OA Length	Drive	Wt.
H-176	15"	1/2"	2 lbs.
H-177	18"	1/2"	2 1/2 lbs.

OTC SPEED HANDLES

Necessities in every socket set OTC Speed Handles are sturdily built of Chrome Vanadium steel and fully heat-treated to prevent twisting or bending. The knob works on a steel ball which provides freedom of action and prevents sticking. Light in weight and well balanced yet sturdy and strong for years of uninterrupted service.

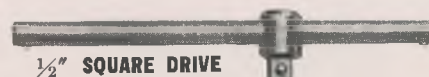


1/2" SQUARE DRIVE

No.	Length	Drive	Wt.
H-183	15"	1/2"	1 1/4 lbs.
H-184	18"	1/2"	1 1/2 lbs.

SLIDING TEE HANDLES

Like all OTC socket handles these Sliding Tees are made from Chrome Vanadium steel and fully heat-treated to provide great strength. They take the place of the ordinary L handle and when used with OTC extensions make an ideal speed T handle suitable for head bolt and main bearing work. A necessity in every socket set.



1/2" SQUARE DRIVE

No.	Length	Drive	Wt.
H-187	10"	1/2"	1 lb.
H-181	15"	1/2"	1 1/4 lbs.

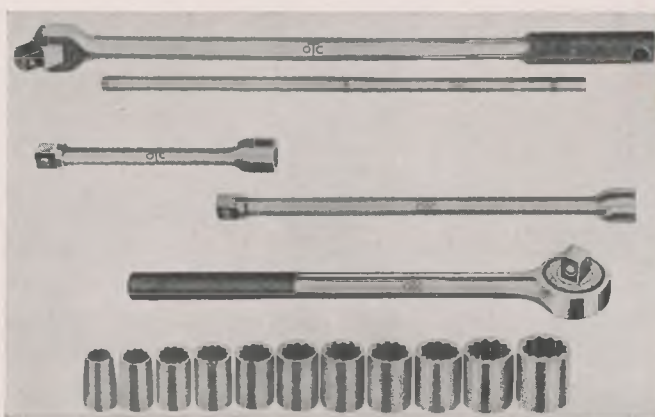
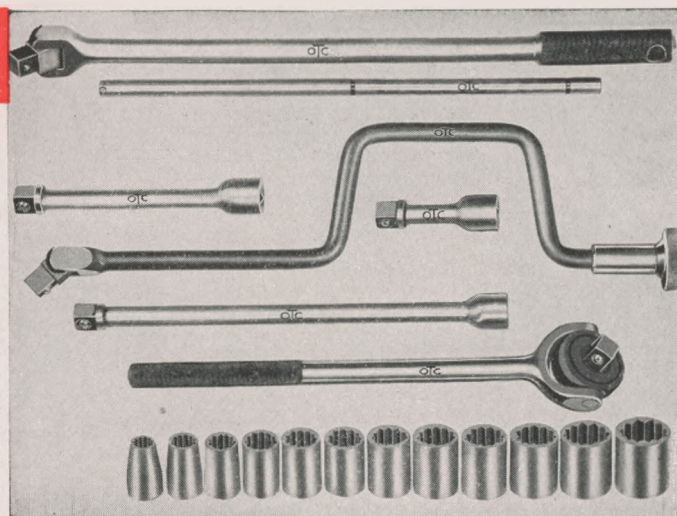
Superflex Set No. SF-180

1/2" SQUARE DRIVE

A combination of sockets and handles designed to increase the speed and efficiency of every mechanic who owns this set. It contains the most popular sockets and handles needed in every day work, and combines a maximum of utility and flexibility at a low price. The OTC Superflex Set consists of 15 sockets: 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 120, $\frac{5}{8}$ "; 121, $\frac{21}{32}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 125, $\frac{25}{32}$ "; 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, $\frac{15}{16}$ "; 132, 1"; 134, $1\frac{1}{16}$ "; 136, $1\frac{1}{8}$ "; 140, $1\frac{1}{4}$ "; H-176 Flex Handle, H-185 Flex Speeder, H-160 Flex Ratchet, H-171, 3" Extension, H-172, 6" Extension, H-173 10" Extension in the H-190 Metal Case which is $18\frac{1}{2}$ " x $6\frac{1}{2}$ " x 2".

No. SF-180—Superflex Set in Metal Case.

Wt. 15 lbs.



Standard Flex Set No. SF-181

1/2" SQUARE DRIVE

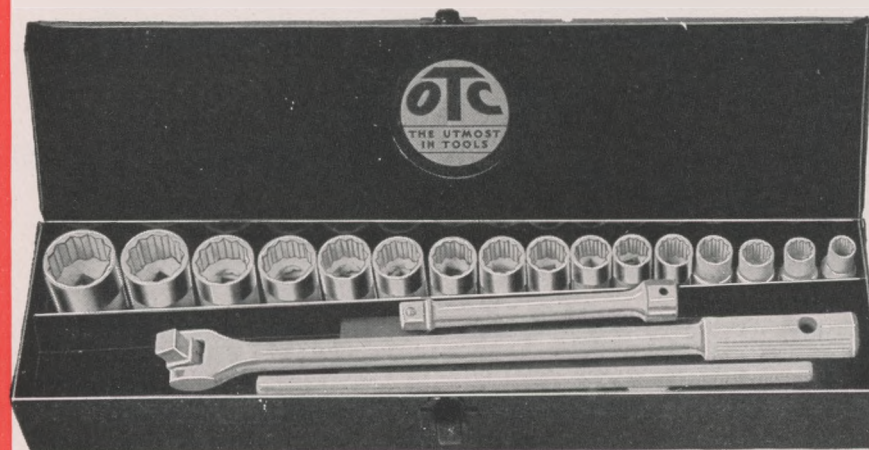
A medium priced combination of sockets and handles that is within the reach of every pocket-book. It can be used on a large variety of work and only the most popular units are included. Consists of 11 sockets, 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 125, $\frac{25}{32}$ "; 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, $\frac{15}{16}$ "; 132, 1"; H-176 Flex Handle, H-161 Ratchet and 2 Extensions, H-172, 6" and H-173, 10" in the F-190 Metal Case which is 16" x $5\frac{1}{2}$ " x 2".

No. SF-181—Standard Set in Metal Case.

Wt. 12 lbs.

No. F-186 FLEX SOCKET SET

1/2" SQUARE DRIVE

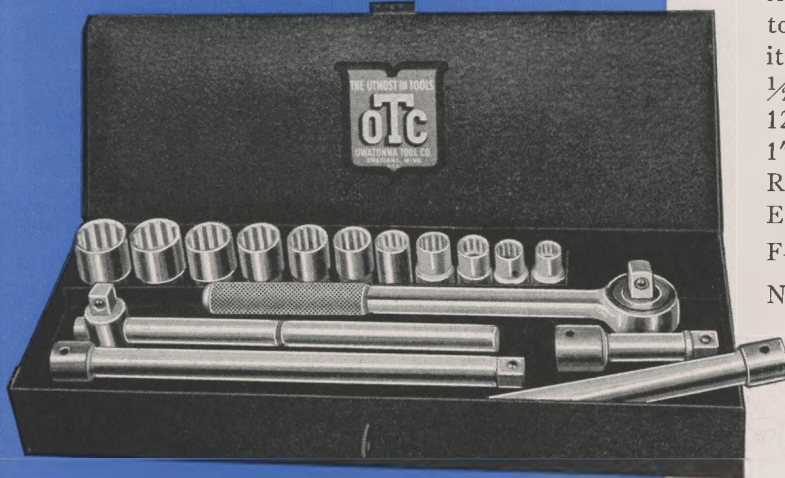


A complete range of socket sizes from $\frac{7}{16}$ " to $1\frac{1}{4}$ " recommends this set as one that is both compact and versatile. Additional handles can be added as the need arises. Consists of 16 sockets: 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 119, $\frac{19}{32}$ "; 120, $\frac{5}{8}$ "; 121, $\frac{21}{32}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 125, $\frac{25}{32}$ "; 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, $\frac{15}{16}$ "; 132, 1"; 134, $1\frac{1}{16}$ "; 136, $1\frac{1}{8}$ "; 140, $1\frac{1}{4}$ "; H-176 Flex Handle, H-172, 6" Extension in the F-192 Metal Case which is 19" x $4\frac{3}{4}$ " x $2\frac{1}{4}$ ".

No. F-186—Flex Set in Metal Case. Wt. $9\frac{1}{2}$ lbs.

No. F-187 Socket Set

$\frac{1}{2}$ " SQUARE DRIVE



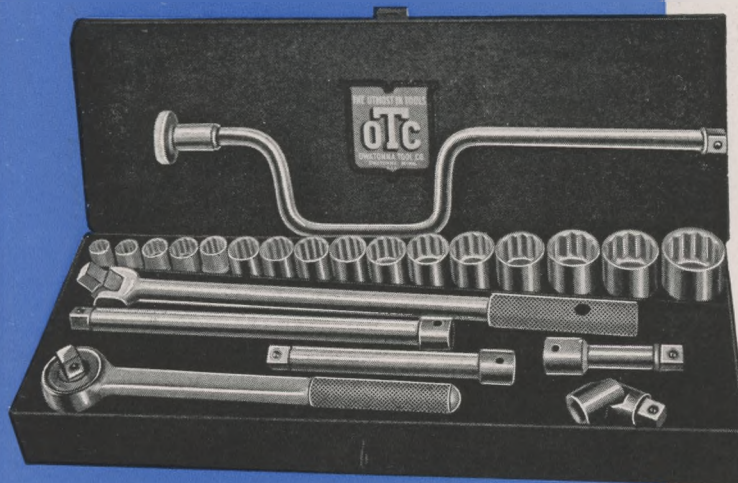
A compact utility socket set that contains only essential units but which can be expanded by adding other units as needed. An excellent set to be used as a nucleus from which to build a more complete set. It contains 17 items as follows: 11 sockets, 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 119, $\frac{19}{32}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, $\frac{15}{16}$ "; 132, 1"; No. H-187 Sliding Tee Handle, H-161 Ratchet, H-171, 3" Extension, H-172, 6" Extension, H-173 10" Extension in the No. F-190 Metal Case, $5\frac{1}{2}$ " x 16" x 2".

No. F-187—Socket Set in Case. Wt. $8\frac{3}{4}$ lbs.



No. F-189 Socket Set

$\frac{1}{2}$ " SQUARE DRIVE



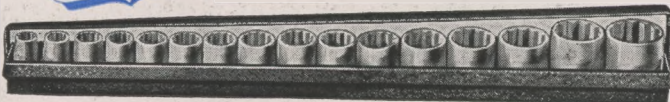
More complete than the set above this set carries a range of sizes and handles that will appeal to every automotive maintenance man. It has all the essential tools required in a socket set and no additional tools are necessary. There are 16 sockets and seven popular handles and extensions to make a working unit that will satisfy the most exacting demands. Sockets and handles in this set are as follows: 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 119, $\frac{19}{32}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 125, $\frac{25}{32}$ "; 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, $\frac{15}{16}$ "; 132, 1"; 134, $\frac{1}{16}$ "; 136, $\frac{1}{8}$ "; 138, $\frac{3}{16}$ " and 140, $\frac{1}{4}$ "; No. H-183 Speed Handle, H-176 Flex Handle, H-161 Ratchet, H-189 Universal Joint, H-171, 3" Extension, H-172, 6" Extension, H-173, 10" Extension in the H-190 Metal Case, $18\frac{1}{2}$ " x $6\frac{1}{2}$ " x 2".

No. F-189—Socket Set in Metal Case.
Wt. $14\frac{1}{2}$ lbs.

OTC

NUMBER 188 SOCKET SET

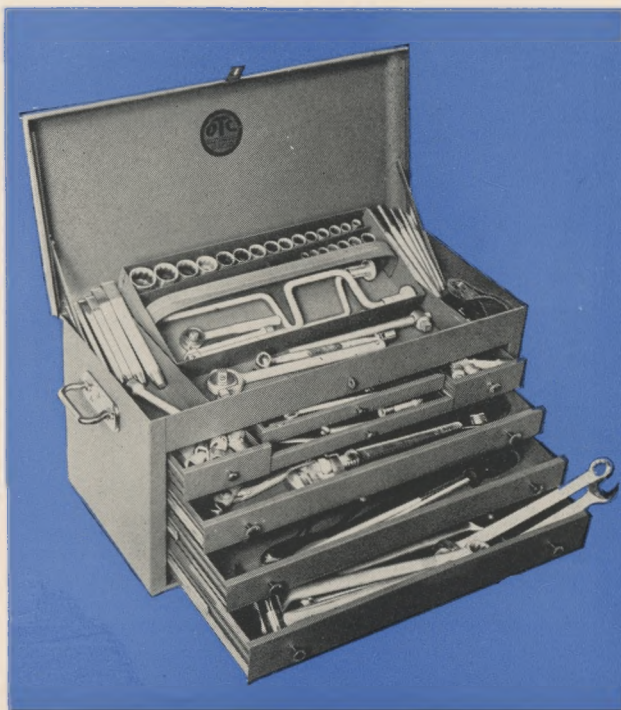
$\frac{1}{2}$ " SQUARE DRIVE



A socket set that carries a complete range of sockets only and which does not include any handles. This set includes sizes as follows: 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 119, $\frac{19}{32}$ "; 120, $\frac{5}{8}$ "; 121, $\frac{21}{32}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 125, $\frac{25}{32}$ "; 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, $\frac{15}{16}$ "; 132, 1"; 134, $\frac{1}{16}$ "; 136, $\frac{1}{8}$ " and 140, $\frac{1}{4}$ ". Contained in a metal tray as illustrated this set

provides all the popular sizes in a handy convenient carrying case $18\frac{1}{2}$ " long, No. 195.

No. 188—Socket Set in Metal Tray. Wt. $4\frac{3}{4}$ lbs.



No. 103-A—Super Service Set in No. 107 DeLuxe Chest, Weight 147 lbs.

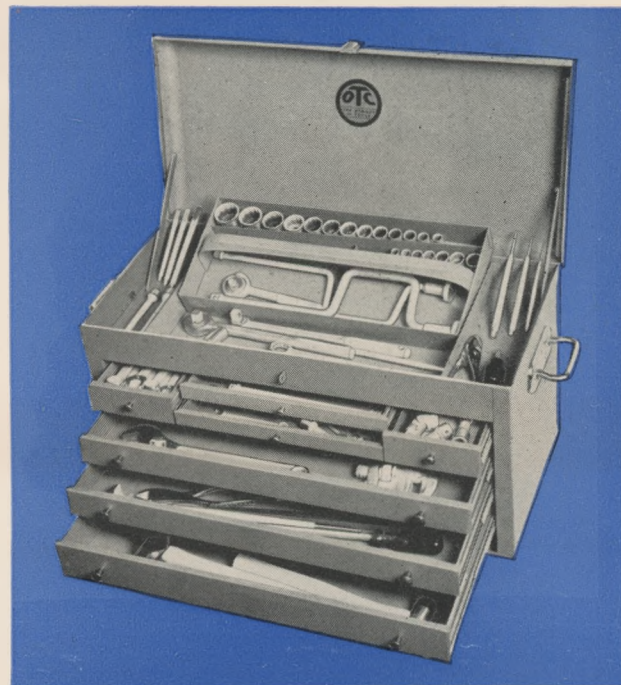
No. 107—DeLuxe Chest with Tote Tray, Weight 69 lbs. DeLuxe Chest is illustrated and described on page 80.

No. 104-A SUPER SET

An essential set not quite as complete as that above but which can be added to as the need arises. It carries only essential sizes in wrenches and also many miscellaneous tools for every day use. The most complete set of its kind in its price range. It contains 60 units including the chest as follows: $\frac{1}{2}$ " Drive Sockets and Handles, 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, $\frac{15}{16}$ "; 132, 1"; 134, $1\frac{1}{16}$ "; 136, $1\frac{1}{8}$ "; 140, $1\frac{1}{4}$ "; H-161 Ratchet, H-176 Flex Handle, H-183 Speed Handle, H-189 Universal Joint and 2 Extensions H-172, 6" and H-173, 10"; $\frac{3}{8}$ " Drive Sockets and Handles, 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, $\frac{3}{4}$ "; H-260 Flex Ratchet, H-283 Speed Handle, H-289 Universal Joint, 2 Extensions H-271, 3" and H-272, 6". Combination Wrenches C-12, $\frac{3}{8}$ "; C-14, $\frac{7}{16}$ "; C-16, $\frac{1}{2}$ "; C-18, $\frac{9}{16}$ "; C-20, $\frac{5}{8}$ "; C-22, $\frac{11}{16}$ "; C-24, $\frac{3}{4}$ "; C-28, $\frac{7}{8}$ "; C-30, $\frac{15}{16}$ "; C-32, 1"; C-34, $1\frac{1}{16}$ "; C-36, $1\frac{1}{8}$ "; C-40, $1\frac{1}{4}$ "; C-42, $1\frac{5}{16}$ "; C-46, $1\frac{7}{16}$ "; three Screw Drivers, 737-A, 6"; 739, $3\frac{1}{4}$ "; 741, 14". Two Pliers, 712, 6" Slip Joint, 714, Lock Ring. Three Files, 12" flat, 10" round, 12" square; DA-12, 12" Adjustable Wrench, PW-10, 10" Pipe Wrench, F-1214, $\frac{3}{8}$ " x $\frac{7}{16}$ " Flex Wrench, BP-16, 1 lb. Ball Pein Hammer, PT-16, 12 oz. Soft Tip Hammer; three Chisels, CC-8, $\frac{3}{16}$ " bit; CC-12, $\frac{7}{16}$ " bit; CC-20, $\frac{3}{4}$ " bit; 3 Taper Punches, TP-8, $\frac{1}{8}$ " bit; TP-12, $\frac{3}{16}$ " bit; TP-20, $\frac{9}{32}$ " bit and one PB-43 Pry Bar all in the De Luxe Mechanics Chest.

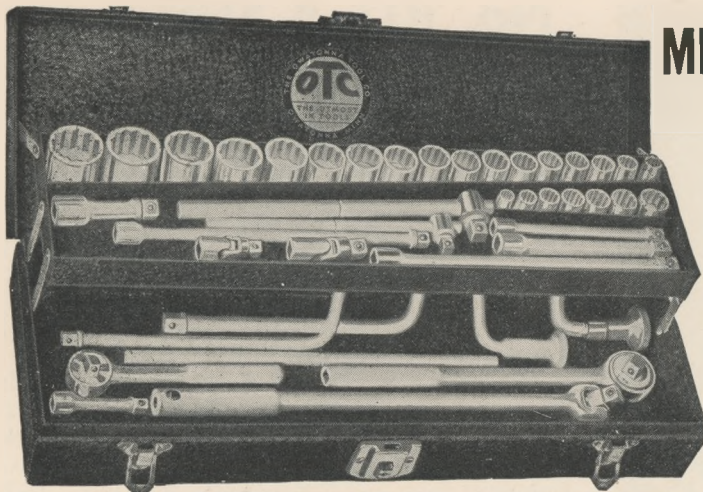
No. 103-A SUPER SET

Comprising a wide range of wrench sizes and including a well rounded out assortment of generally useful tools this set is an extremely popular one. It consists of 82 units with the chest. There are 19 standard $\frac{1}{2}$ " drive sockets, 112, $\frac{3}{8}$ "; 114, $\frac{7}{16}$ "; 116, $\frac{1}{2}$ "; 118, $\frac{9}{16}$ "; 119, $\frac{19}{32}$ "; 120, $\frac{5}{8}$ "; 122, $\frac{11}{16}$ "; 124, $\frac{3}{4}$ "; 125, $\frac{25}{32}$ "; 126, $\frac{13}{16}$ "; 128, $\frac{7}{8}$ "; 130, $\frac{15}{16}$ "; 132, 1"; 134, $1\frac{1}{16}$ "; 136, $1\frac{1}{8}$ "; 140, $1\frac{1}{4}$ "; three Universal Hex. Sockets U-118, $\frac{9}{16}$ "; U-120, $\frac{5}{8}$ "; U-122, $\frac{11}{16}$ "; No. H-160 Flex Ratchet, H-189 Univ. Jt., H-176 Flex Handle, H-183 Speed Handle, H-187 Sliding Tee Handle and 3 Extensions, H-171, 3"; H-172, 6" and H-173, 10". Seven sockets and Handles with $\frac{3}{8}$ " drive 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, $\frac{3}{4}$ "; H-261 Ratchet, H-283 Speed Handle, H-287 Sliding Tee, H-289 Universal Joint and 3 Extensions H-271, 3"; H-272, 6" and H-273, 10". Fifteen Combination Wrenches, C-12, $\frac{3}{8}$ "; C-14, $\frac{7}{16}$ "; C-16, $\frac{1}{2}$ "; C-18, $\frac{9}{16}$ "; C-20, $\frac{5}{8}$ "; C-22, $\frac{11}{16}$ "; C-24, $\frac{3}{4}$ "; C-28, $\frac{7}{8}$ "; C-30, $\frac{15}{16}$ "; C-32, 1"; C-34, $1\frac{1}{16}$ "; C-36, $1\frac{1}{8}$ "; C-40, $1\frac{1}{4}$ "; C-42, $1\frac{5}{16}$ "; C-46, $1\frac{7}{16}$ "; three Screw Drivers, 737-A, 6"; 739, $3\frac{1}{4}$ "; 741, 14"; two Pliers, 712, 6" Slip Joint and 614 Snap Ring; DA-10, 10" Adjustable and PW-10, 10" Pipe Wrench, 3 Files, 12" flat, 10" round, 12" square, one F-1618, $\frac{1}{2}$ x $\frac{9}{16}$ " Flex Wrench, one BP-32, 2 lb. Ball Pein Hammer, PT-16, 12 oz. Soft Tip Hammer, PC-25 set of 6 Chisels and 6 Taper Punches, one PB-43 Pry Bar in the No. 107 De Luxe Mechanics Chest.



No. 104-A—Super Service Set complete in 107 DeLuxe Chest, weight 120 lbs.

No. 107—DeLuxe Chest with Tote Tray. Weight 69 lbs. DeLuxe Chest is illustrated and described on page 80.



MECHANICS SET No. 185

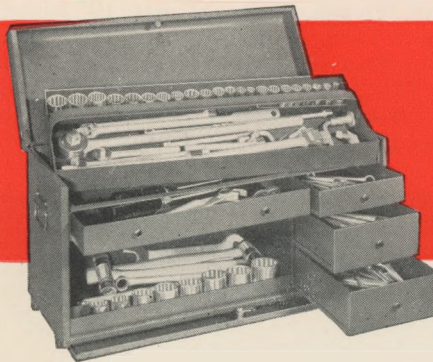
1/2" AND 3/8" SQUARE DRIVE

This set contains a complete combination of sockets and handles considered most practical for general repair work. A set that will be the pride of the most experienced mechanic or the beginner alike. Only essential tools are included. The chest is small but large enough to carry additional tools and sturdy enough to give long service. This set consists of 1/2" Drive Sockets and Handles: 114, 7/16"; 116, 1/2"; 118, 9/16"; 119, 19/32"; 120, 5/8"; 121, 21/32"; 122, 11/16"; 124, 3/4"; 125, 25/32"; 126, 13/16"; 128, 7/8"; 130, 15/16"; 132, 1"; 134, 1 1/16"; 136, 1 1/8"; 138, 1 3/16"; 140, 1 1/4"; H-183

Speed Handle, H-189 Univ. Jt., H-176 Flex Handle, H-187 Sliding Tee, H-161 Ratchet, H-171, 3"; H-172, 6"; H-173, 10" Extensions; 3/8" Drive Sockets and Handles: 212, 3/8"; 214, 7/16"; 216, 1/2"; 218, 9/16"; 220, 5/8"; 222, 11/16"; 224, 3/4"; H-261 Ratchet, H-283 Speed Handle, H-287 Sliding Tee, H-289 Univ. Jt., H-271, 3"; H-272, 6" and H-273, 10" Extensions in the 199 Mechanics Chest which is 21" x 7 1/4" x 4 1/2".

No. 185—Mechanics Set in Metal Chest. Wt. 25 1/2 lbs.

No. 199—Mechanics Chest (only). Wt. 9 3/4 lbs.



NUMBER 100-B MASTER SET

3/4", 1/2" and 3/4" SQUARE DRIVE

124, 3/4"; 125, 25/32"; 126, 13/16"; 128, 7/8"; 130, 15/16"; 131, 31/32"; 132, 1"; 134, 1 1/16" twelve point; S-114, 7/16"; S-116, 1/2"; S-118, 9/16"; S-120, 5/8"; S-122, 11/16"; S-124, 3/4" eight point; H-176 Flex Handle, H-161 Ratchet, H-189 Univ. Jt. H-172, 6" and H-173, 10" Extensions; 3/8" Drive Units 212, 3/8"; 214, 7/16"; 216, 1/2"; 218, 9/16"; 220, 5/8"; 222, 11/16"; 224, 3/4"; H-289 Univ. Jt., H-261 Ratchet, H-283 Speed Handle and Extensions H-271, 3"; H-272, 6"; H-273, 10"; 3/4" Drive Units 334, 1 1/16"; 336, 1 1/8"; 338, 1 3/16"; 340, 1 1/4"; 342, 1 5/16"; 344, 1 3/8"; 346, 1 7/16"; 348, 1 1/2"; 352, 1 5/8"; H-377 Flex Handle, H-361 Ratchet, H-373, 10" Extension. Four Screw Drivers, 738, 12 1/2"; 736, 4 1/4"; 739, 3 1/4"; 740, 10". No. 712, 6" Pliers, Box Wrench Set No. BA-5, No. 0-10 Tappet Set. No. ES-7 Open End Set, No. PC-25 Punch and Chisel Set, No. BP-32, 2 lb. Ball Pein Hammer, PB-43 Pry Bar, 860 Thickness Gauge, 866 Ignition Gauge, PT-16, 12 oz. Soft Tip Hammer.

No. 100-B—Master Set complete in 101 Chest.

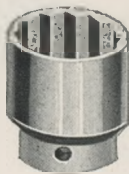
Wt. 100 lbs.

MASTER SET No. 102-B

An excellent assortment of tools that any mechanic would be proud to own. It has 68 units as follows: 1/2" Drive Units 112, 3/8"; 114, 7/16"; 116, 1/2"; 118, 9/16"; 119, 19/32"; 120, 5/8"; 121, 21/32"; 122, 11/16"; 124, 3/4"; 125, 25/32"; 126, 13/16"; 128, 7/8"; 130, 15/16"; 131, 31/32"; 132, 1"; 134, 1 1/16"; twelve point and S-114, 7/16"; S-116, 1/2"; S-118, 9/16"; S-120, 5/8"; S-122, 11/16"; S-124, 3/4" eight point. H-176 Flex Handle, H-161 Ratchet, H-189 Univ. Joint H-172, 6" and H-173, 10" Extensions, 3/8" Drive Units: 212, 3/8"; 214, 7/16"; 216, 1/2"; 218, 9/16"; 220, 5/8"; 222, 11/16"; 224, 3/4"; H-289 Univ. Joint, H-261 Ratchet, H-283 Speed Handle, H-271, 3"; H-272, 6" and H-273, 10" Extensions. No. 712, 6" Pliers, No. 736, 4 1/4"; 738, 12 1/2"; 739, 3 1/4"; 740, 10" Screw Drivers; Combination Wrenches: C-12, 3/8"; C-14, 7/16"; C-16, 1/2"; C-18, 9/16"; C-20, 5/8"; C-22, 11/16"; C-24, 3/4"; C-26, 13/16"; No. PC-25 Punch and Chisel Set, BP-16, one lb. Ball Pein Hammer, PB-43 Pry Bar and 860 Thickness Gauge in the 110 Mechanics Chest.

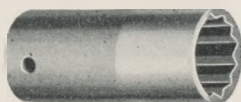
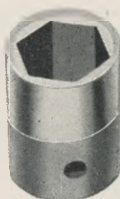
No. 102-B—Master Set in 110 Chest. Wt. 53 lbs.



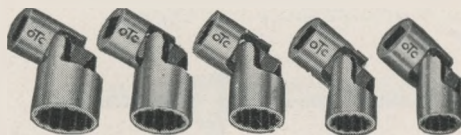


Because of their design, exceptionally thin walls, light weight and great strength, these Junior sockets have proven to be extremely popular with all classes of mechanics. They are ideally suited for work on crankcases, manifold nuts and all light fast work in inaccessible places on Trucks, Tractors, Automobiles and Aircraft. Hot-forged from Chrome Vanadium steel and heat-treated these sockets are accurate as to size and short enough to make a close-coupled wrench when used with OTC Junior Handles.

Popular sizes of OTC Junior Sockets are also available in Hexagon sizes. Particularly popular on crankcase and starter work where sockets have a tendency to wear due to grit. Will maintain accuracy longer than the 12 point type and are practical in all kinds of maintenance work.



For use in automotive, truck, tractor and aircraft maintenance OTC Deep Junior Sockets are ideal for removing nuts where the bolt projects through the nut and the shallow socket cannot be used. Sturdily built with thin walls and accurate as to size.



Short coupled, thin walled OTC Universal Sockets that break over at nearly right angles are the choice of better mechanics everywhere. Just the thing for aircraft, automotive and truck maintenance on manifolds, starters, carburetors, generators and many other inaccessible places. Built of Chrome Vanadium steel for long hard service.

OTC JUNIOR SOCKETS

3/8" SQUARE DRIVE

12 POINT SOCKETS

Wrench No.	Opening Size	Length	Outside Diameter		Weight per Doz.	
			Socket End	Drive End		
212	3/8"	1 1/2"	1 1/2"	1 1/2"	..	12
214	7/16"	1 1/2"	1 1/2"	1 1/2"	..	12
216	1/2"	1 1/2"	1 1/2"	1 1/2"	..	12
218	9/16"	1 1/2"	1 1/2"	1 1/2"	..	12
220	5/8"	1"	1 1/2"	1 1/2"	..	12
222	1 1/16"	1 1/2"	1 1/2"	1 1/2"	1	8
224	3/4"	1 1/2"	1 1/2"	1 1/2"	1	8

Packed 12 to a carton.

HEXAGON SOCKETS—3/8" SQUARE DRIVE

Wrench No.	Opening Size	Length	Outside Diameter		Weight per Doz.	
			Socket End	Drive End		
D-214	7/16"	1 1/2"	1 1/2"	1 1/2"	..	12
D-216	1/2"	1 1/2"	1 1/2"	1 1/2"	..	12
D-218	9/16"	1 1/2"	1 1/2"	1 1/2"	..	12
D-220	5/8"	1"	1 1/2"	1 1/2"	..	12
D-222	1 1/16"	1 1/2"	1 1/2"	1 1/2"	1	8
D-224	3/4"	1 1/2"	1 1/2"	1 1/2"	1	8

Packed 12 to a carton.

DEEP 12 POINT SOCKETS—3/8" SQUARE DRIVE

Wrench No.	Opening Size	Length	Outside Diameter		Weight per Doz.	
			Socket End	Drive End		
L-212	3/8"	2"	1 1/2"	1 1/2"	..	12
L-214	7/16"	2"	1 1/2"	1 1/2"	..	12
L-216	1/2"	2"	1 1/2"	1 1/2"	..	12
L-218	9/16"	2"	1 1/2"	1 1/2"	1	8
L-220	5/8"	2"	1 1/2"	1 1/2"	1	8
L-222	1 1/16"	2 1/2"	1 1/2"	1 1/2"	2	4
L-224	3/4"	2 1/2"	1 1/2"	1 1/2"	2	4

Packed 12 to a carton.

DEEP 8 POINT SOCKETS—3/8" SQUARE DRIVE

No.	Size	Length	Outside Diameter		Weight
			Socket End	Drive End	
S-212	3/8"	2"	1 1/2"	1 1/2"	2 oz.
S-214	7/16"	2"	1 1/2"	1 1/2"	2 oz.
S-216	1/2"	2"	1 1/2"	1 1/2"	3 oz.

Packed 12 to a carton.

UNIVERSAL SOCKETS—3/8" SQUARE DRIVE

Wrench No.	Opening Size	Overall Length	Outside Diameter		Weight per Doz.	
			Socket End	Drive End		
U-212	3/8"	1 1/2"	1 1/2"	1 1/2"	1	8
U-214	7/16"	1 1/2"	1 1/2"	1 1/2"	1	8
U-216	1/2"	1 1/2"	1 1/2"	1 1/2"	1	8
U-218	9/16"	1 1/2"	1 1/2"	1 1/2"	1	8
U-220	5/8"	1 3/4"	1 1/2"	1 1/2"	1	8
U-222	1 1/16"	1 3/4"	1 1/2"	1 1/2"	1	8
U-224	3/4"	1 7/8"	1"	1 1/2"	2	4

Packed 12 to a carton.

24 TOOTH RATCHET $\frac{3}{8}$ " SQUARE DRIVE

Like its counterpart in the $\frac{1}{2}$ " drive series this Junior 24 Tooth Ratchet is just as sturdily built and will absorb a proportionate amount of hard work. Completely enclosed. It is a smooth operating ratchet with an exceptionally short throw.

FLEX RATCHET $\frac{3}{8}$ " SQUARE DRIVE

A new idea in Ratchets that has the enthusiastic support of everyone who has used it. The ratchet with the flexible head containing 24 teeth, fully enclosed. A smooth operating, sturdy tool that fills an urgent need in every tool box.

JUNIOR FLEX HANDLE $\frac{3}{8}$ " SQUARE DRIVE

One of the handiest parts of a socket set. The OTC Junior Flex Handle is built of Chrome Vanadium steel and heat-treated to give rigidity and toughness. It is also light and well balanced—a veritable little giant in this series.

SPEED HANDLES $\frac{3}{8}$ " SQUARE DRIVE

Like all other Junior handles these speeders are made from Chrome Vanadium steel and heat-treated to prevent bending and twisting. Made of $\frac{3}{8}$ " round, light and easy to use, yet strong enough to withstand severe strain. The knob operates on a ball bearing to provide freedom of action and prevent sticking.

EXTENSIONS $\frac{3}{8}$ " SQUARE DRIVE

No.	Length	Drive	Wt.
H-270	1½"	$\frac{3}{8}$ "	2 oz.
H-271	3"	$\frac{3}{8}$ "	3 oz.
H-272	6"	$\frac{3}{8}$ "	4 oz.
H-273	10"	$\frac{3}{8}$ "	6 oz.
H-274	18"	$\frac{3}{8}$ "	11 oz.

SLIDING TEE HANDLE $\frac{3}{8}$ " SQUARE DRIVE

Used with an extension or separately with individual Junior Sockets this OTC handle is a popular one in all kinds of work. The head slides easily yet a friction ball holds it in the desired position. A general utility handle that is very practical.

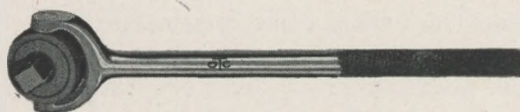
JUNIOR UNIVERSAL JOINT

$\frac{3}{8}$ " SQUARE DRIVE

Used with OTC Junior sockets on an extension or speed handle this Universal Joint will provide accessibility to many difficult jobs. All parts are made of Chrome Vanadium steel and heat-treated to give strength. It will break over at nearly right angles enabling the operator to loosen or tighten a nut without disassembling the tool. No. H-289—Universal Joint, 1⅞" overall. Wt. 2 oz.



No.	Length	Head Diam.	Head Thickness	Drive	Wt.
H-261	6½"	1⅞"	$\frac{3}{16}$ "	$\frac{3}{8}$ "	10 oz.



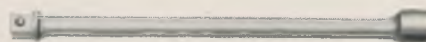
No.	Length	Head Diameter	Head Thickness	Drive	Wt.
H-260	8"	1½"	$\frac{3}{16}$ "	$\frac{3}{8}$ "	14 oz.



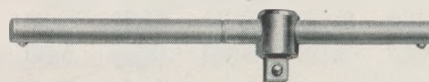
No.	Length	Drive	Wt.
H-275	8"	$\frac{3}{8}$ "	9 oz.



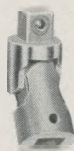
No.	Length	Sweep Radius	Drive	Wt.
H-283	15"	3¼"	$\frac{3}{8}$ "	13 oz.
H-282	18"	3¼"	$\frac{3}{8}$ "	14 oz.



Up-set forged on each end and built of Chrome Vanadium steel, heat-treated to prevent twisting and bending, these extensions are strong and rigid to withstand hard use. Furnished in five popular lengths to provide accessibility to all types of maintenance operations.



No.	Length	Head Diam.	Drive	Wt.
H-287	8"	$\frac{3}{4}$ "	$\frac{3}{8}$ "	6 oz.



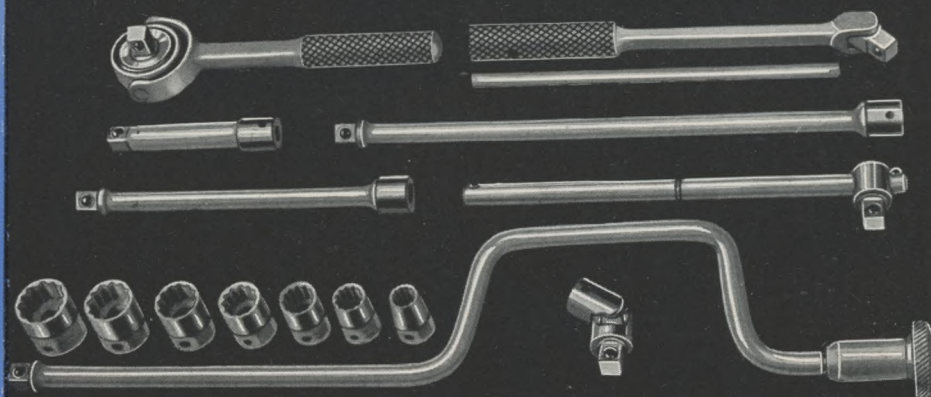
**JUNIOR
UNIVERSAL
JOINT H-289**



NO. SF-280 JUNIOR SUPERFLEX SET

3/8" SQUARE DRIVE

A compact, complete set of 3/8" drive sockets which includes all the popular sizes and handles. It consists of 15 units including seven sockets, 212, 3/8"; 214, 7/16"; 216, 1/2"; 218, 9/16"; 220, 5/8"; 222, 11/16"; 224, 3/4" and eight handles H-283, 15" Speed Handle, H-275 Flex Handle, H-260 Flex Ratchet, H-287 Sliding Tee Handle, H-289 Universal Joint, H-271, 3"; H-272, 6" and H-273, 10" Extensions in a sturdy



metal box.

Ideal for automotive, aircraft and refrigeration maintenance.

No. SF-280—Junior Superflex Set in metal case. Wt. 7 lbs.

No. H-290—Metal Case (only) 19" x 5" x 1 1/2". Wt. 3 lbs.



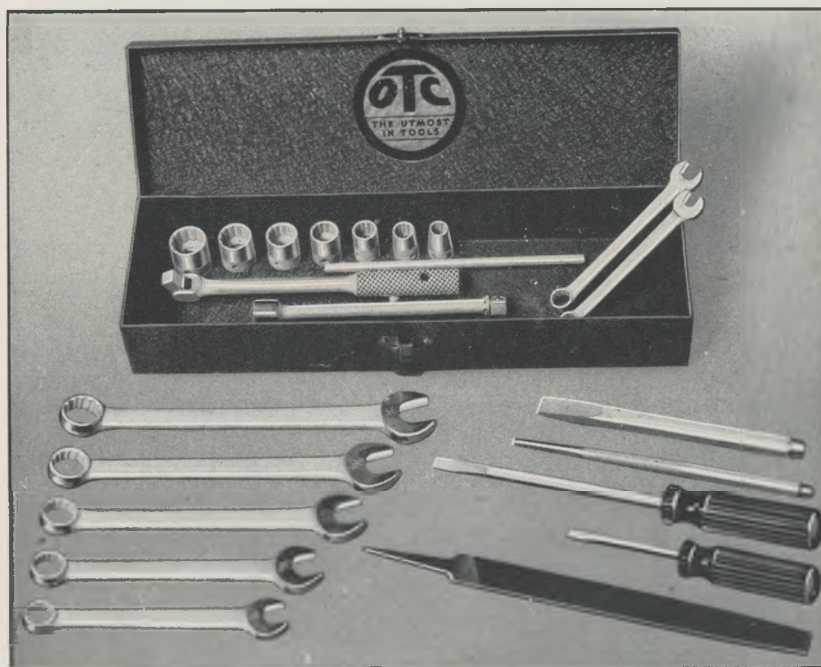
JUNIOR UTILITY SET

NUMBER SF-230

3/8" SQUARE DRIVE

A compact utility set that will appeal to refrigeration and air-conditioning service men as well as automotive and aircraft maintenance mechanics.

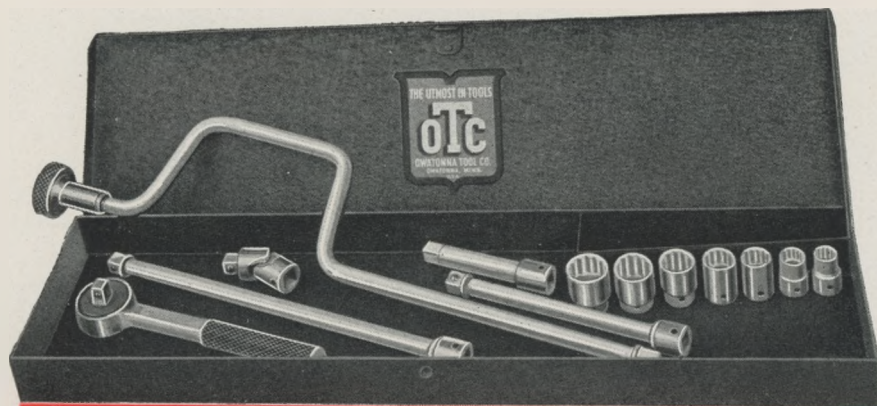
It contains seven Junior sockets, 212, 3/8"; 214, 7/16"; 216, 1/2"; 218, 9/16"; 220, 5/8"; 222, 11/16"; 224, 3/4"; H-275 Flex Handle, H-272, 6" Extension, seven Combination Wrenches, C-12, 3/8"; C-14, 7/16"; C-16, 1/2"; C-18, 9/16"; C-20, 5/8"; C-22, 11/16"; C-24, 3/4"; a TP-12, 3/8" bit taper punch, CC-16, 1/2" bit cold chisel; 737-A, 6" and 740, 10" Screw Drivers and an 8" Mill File in a handy metal case.



Additional socket handles as shown on page 76 can be added when the need for them arises.

No. SF-230—Junior Utility Set complete in Metal Case. Wt. 6 1/2 lbs.

No. H-99—Metal Case (only) 14 1/2" x 4 1/2" x 2". Wt. 2 1/4 lbs.



NUMBER SF-240 JUNIOR SET

$\frac{3}{8}$ " SQUARE DRIVE

A complete combination of Junior sockets and handles that will fit perfectly into the tool kit of every maintenance man regardless of the kind of work he specializes in. It consists of seven sockets, 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, $\frac{3}{4}$ "; and six handles, H-283 Speed Handle, H-261 Ratchet, H-289 Universal Joint, H-271, 3" Extension, H-272, 6" Extension, H-273, 10" Extension in the H-290 metal case which is 19" x 5" x $1\frac{1}{2}$ ".

This set will appeal especially to automotive, aircraft and refrigeration maintenance men.

No. SF-240—Junior Socket Set in Metal Case. Wt. 6 lbs.

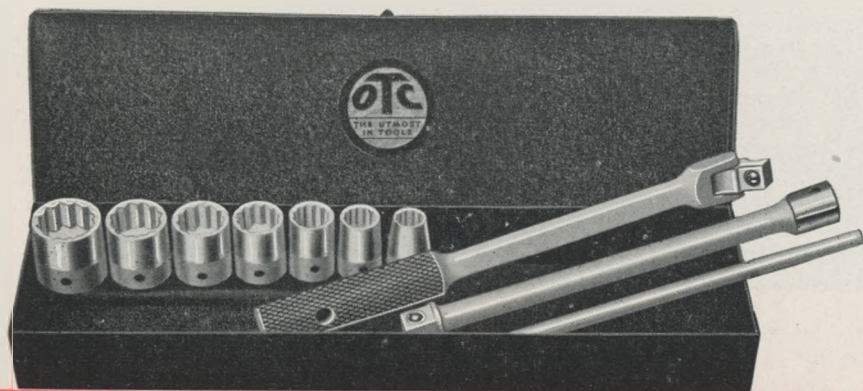


NUMBER 282 JUNIOR SET

$\frac{3}{8}$ " SQUARE DRIVE

Another set that will appeal to automotive and aircraft maintenance men. It carries a complete range of Junior sockets together with a popular assortment of handles. It consists of seven sockets, 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, $\frac{3}{4}$ "; and five handles, H-282 Speed Handle, H-289 Universal Joint, H-287 Sliding Tee, H-272, 6" Extension, H-273, 10" Extension in Metal Case No. H-290 which is 19" x 5" x $1\frac{1}{2}$ ".

No. 282—Junior Socket Set in Metal Case. Wt. $5\frac{3}{4}$ lbs.



NUMBER SF-235 JUNIOR SET

$\frac{3}{8}$ " SQUARE DRIVE

This is a small, compact unit covering a complete range of sizes with the popular OTC Flex Handle and Extension. Will do a variety of work all out of proportion to its size and is a good set and a nucleus for a more complete set. It consists of seven sockets, 212, $\frac{3}{8}$ "; 214, $\frac{7}{16}$ "; 216, $\frac{1}{2}$ "; 218, $\frac{9}{16}$ "; 220, $\frac{5}{8}$ "; 222, $\frac{11}{16}$ "; 224, $\frac{3}{4}$ "; and two handles H-275 Flex Handle and H-272, 6" Extension complete in a sturdy metal case $10\frac{1}{2}$ " x $2\frac{3}{4}$ " x $1\frac{1}{8}$ ", No. 890

No. SF-235—Junior Set in Metal Case. Wt. 2 lbs.

OTC SCREW STARTERS

The screw starters here illustrated are the most practical tools of their kind for aircraft, automotive, refrigeration and radio service work. Properly designed and finely made, these starters maintain a positive grip making it almost impossible to drop or lose a screw.

Any one of these tools which are furnished in three popular lengths will prove to be a source of satisfaction and will last indefinitely if properly used. To confine their use to starting screws, these tools are not guaranteed.

No. 727—Starter, 2½". Wt. ½ oz.

No. 728—Starter, 5½". Wt. 1 oz.

No. 729—Starter, 9¼". Wt. 1½ oz.

LOCK RING PLIER

NO. 714

The OTC Horseshoe Lock Ring Plier is built primarily to spread the horseshoe lock rings used on all types of hydraulic brakes, transmission and differential parts and in other places on automobiles and trucks. The use of lock rings being more prevalent than ever, a tool of this kind is a necessity. This plier spreads lock rings easily and quickly without loss of time.

No. 714—Lock Ring Plier. Wt. ½ lb.

VALVE LOCK REPLACER

NO. 851-A

Easy to load and operate, this new tool gets into tight places to replace split valve locks on practically all makes of cars and trucks. It holds the split locks firmly until they are placed in position and the valve spring is lowered.

This tool should be used with the No. A-100 Stubby Valve Lifter illustrated on page 89 for best results.

No. 851-A—Valve Lock Replacer. Wt. 4 oz.

SPARK PLUG HOLE THREAD CHASER

NO. 1418

This Chaser has a 14 millimeter chaser on one end and an 18 millimeter chaser on the other end for cleaning the spark plug hole threads on a majority of popular cars. It is easily applied and quickly straightens burred or damaged threads in cylinder heads.

No. 1418—Spark Plug Thread Chaser. Wt. 6 oz.



UNIVERSAL CHAIN WRENCH

OTC Chain Wrenches are without a doubt the handiest and most practical wrenches of this type ever built. They have the ability to grip round, hexagonal or square material equally well, without slipping and will turn large nuts, pipe or rods in inaccessible places where no other wrench will operate. Two sizes are available to provide a range from ⅝" to 6" with handles of corresponding strength and size.

Chain not guaranteed.

No. 887—Chain Wrench, 12" long, ⅝" to 4½" capacity. Wt. 1¾ lbs.

No. 887-A—Chain (only) 16" long.

No. 888—Chain Wrench, 17" long, 3" to 6" capacity. Wt. 4½ lbs.

No. 888-A—Chain (only) 22" long.

PYRALIN TIP HAMMERS

For fitting piston pins, tapping on gears, bearings, valves, etc., these soft tip hammers are indispensable in a service shop. Tips are tough enough to withstand severe use yet soft enough to eliminate the danger of damaging delicate parts. Tips are replaceable. One has a flat surface while the other has a rounded surface. Furnished in two sizes.

No. PT-8—Hammer. Wt. 6 oz.

No. PT-16—Hammer. Wt. 12 oz.

No. RT-8—Round tips for PT-8.

No. FT-8—Flat Tips for PT-8.

No. RT-16—Round Tip for PT-16.

No. FT-16—Flat Tip for PT-16.

WISE GRIP WRENCHES

A general utility tool and an extremely handy one in any service shop. Very useful for holding bolts, removing battery terminal nuts, turning rods, etc. Furnished in two popular sizes.

No. 717—Vise-grip Wrench, max. cap. 1⅝". Wt. ¾ lbs.

No. 718—Vise-grip Wrench, max. cap. 1¼". Wt. 1 lb.

SNAP RING PLIER

NO. 614

An indispensable tool for removing contracting type Snap Rings which are used to locate bearings, gears and other parts on shafts. See page 49 for description of complete Snap Ring Set.

No. 614—Snap Ring Pliers. Wt. 10 oz.

OTC DELUXE TOOLMASTER

Engineered and designed by mechanics particularly for mechanics who appreciate fine things the TOOLMASTER utilizes all available space and provides plenty of room for a complete set of tools with room to spare.

All drawers are roomy and slide on compound slides which roll freely even when the drawers are loaded. Built-in locks make the TOOLMASTER a safe depository for valuable equipment. The chest is provided with a strong hasp to permit the use of a padlock. Rubber-tired, ball bearing casters carry this unit over rough cement floors easily and silently while the rigid chrome handle facilitates moving the entire unit.

No feature of design or workmanship has been forgotten to provide an attractive, efficient, sturdy roll-away tool safe for the discriminating service man.

The MASTERTOTER is 36" high, 18" deep and 27" wide. The MASTERCHEST is 13" high, 10" deep and 26" wide. No. 106—DeLuxe Toolmaster. Wt. 150 lbs.

DELUXE MECHANICS CHEST

Utilizing every bit of space this new, roomy chest is the last word in tool box design. Finished in blue crackle. Two small side drawers are 11" x 4 $\frac{3}{4}$ " x 2". Shallow center drawers for micrometers and other instruments are 11" x 12" x 1". The bottoms of these drawers are sprayed with felt. The three bottom drawers are 11" x 23" x 2" and 11" x 23" x 3" respectively. All drawers operate on compound slides for smooth operation.

No. 107—DeLuxe Chest Complete, 26" x 14 $\frac{1}{2}$ " x 12". Wt. 69 lbs.

No. 107-A—Tote Tray (only) 17 $\frac{1}{2}$ " x 8" x 2 $\frac{1}{4}$ ". Wt. 3 lbs.

OTC MASTERTOTER

The new OTC MASTERTOTER is the last word in streamlined beauty and practical design.

Two roomy drawers each 22 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ " x 31 $\frac{1}{2}$ " and mounted on compound slides furnish sufficient space for small tools, while the shelves will accommodate any bulky equipment such as electric drills, etc. This cabinet is fully enclosed and can be securely locked. Rubber-tired ball bearing casters allow freedom and silence of movement. Well built, 36" high, 18" deep and 27" wide. No. 105—Mastertoter. Wt. 110 lbs.

OTC MASTERCHEST No. 101

The OTC MASTERCHEST is built to provide an abundance of room for a complete set of hand tools. It is roomy with well-spaced compartments to permit segregation of the different types of wrenches.

Four drawers, 16 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " x 2", 9 $\frac{1}{2}$ " x 7 $\frac{1}{4}$ " x 2", 9 $\frac{1}{2}$ " x 7 $\frac{1}{4}$ " x 3" and 9 $\frac{1}{2}$ " x 7 $\frac{1}{4}$ " x 3" provide plenty of space for small tools while a larger compartment allows room for larger tools. The removable tray 25" x 8" x 2" has two socket divisions where a complete set of sockets can be kept. Drawers run on compound slides. The blue crackle finish and the streamline design makes this chest an attractive addition to any service man's outfit.

No. 101—Master Chest 13" x 10" x 26". Wt. 51 lbs.

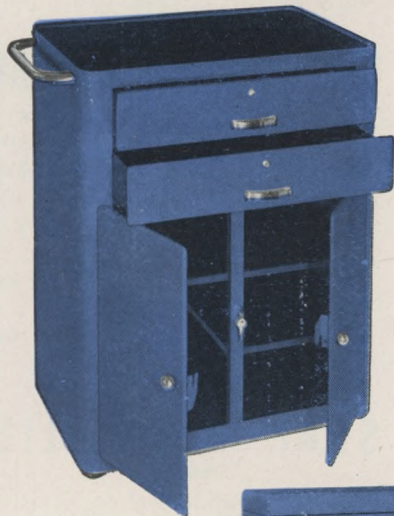
No. 101-A—Tote Tray (only) 25" x 8" x 2". Wt. 4 lbs.



No. 106



No. 107



No. 105



No. 101

STANDARD TOOLMASTER

With 101 Master Chest

This combination includes the No. 109 Standard Tooltoter and the beautiful No. 101 Masterchest.

Providing ample space for larger tools and room to spare for small tools this unit will appeal to many service men as an economical one. Medium priced yet sufficiently large and roomy it will fulfill all requirements under most exacting shop conditions. All drawers operate on compound slides.

Every shop should be equipped with one or more OTC Tooltoters. A variety of selections is available to suit every service man's needs. Equipped with 3" steel casters.

No. 117—Standard Toolmaster. Wt. 126 lbs.

STANDARD TOOLTOTER

A compact, roomy Toter of medium size for the mechanic or machinist who requires a convenient and safe place in which to store his equipment. The new OTC Standard Toter is sturdily built. Its top deck is large enough to accommodate a tool chest or provide a portable bench or table on which tools can be laid while in use. Its two doors when open, swing back out of the way and reveal one roomy drawer 24 $\frac{1}{2}$ " long, 11" wide and 4 $\frac{3}{4}$ " deep and mounted on compound slides. The lower compartment has a convenient shelf for reamer sets and other tools while plenty of space is reserved for large equipment and electric drills, etc.

This cabinet is completely enclosed and can be securely locked with a padlock. It is 26 $\frac{1}{2}$ " wide, 15" deep and 31" high. It is attractively finished in blue crackle and will add to the appearance of any shop. Equipped with 3" steel casters.

No. 109—Standard Tooltoter. Wt. 75 lbs.

STANDARD TOOLMASTER

With No. 110 Chest

This combination of the No. 109 Standard Toter and the No. 110 Standard Chest makes an ideal and economical unit for the discriminating service man. It provides a safe and convenient storage place for a complete set of hand tools. In addition, it is an attractive piece of equipment and will enhance the appearance of any shop.

It is convenient and efficient and can be securely locked. Heavy large casters permit rolling it to any position in the shop making all necessary hand tools easily available at the job. The unit stands approximately 36" high.

Built of heavy gauge metal and of welded construction throughout. All drawers operate on compound slides. Beautiful blue, crackle finish. Equipped with 3" steel casters.

No. 135—Standard Toolmaster. Wt. 105 lbs.

STANDARD MECHANICS CHEST

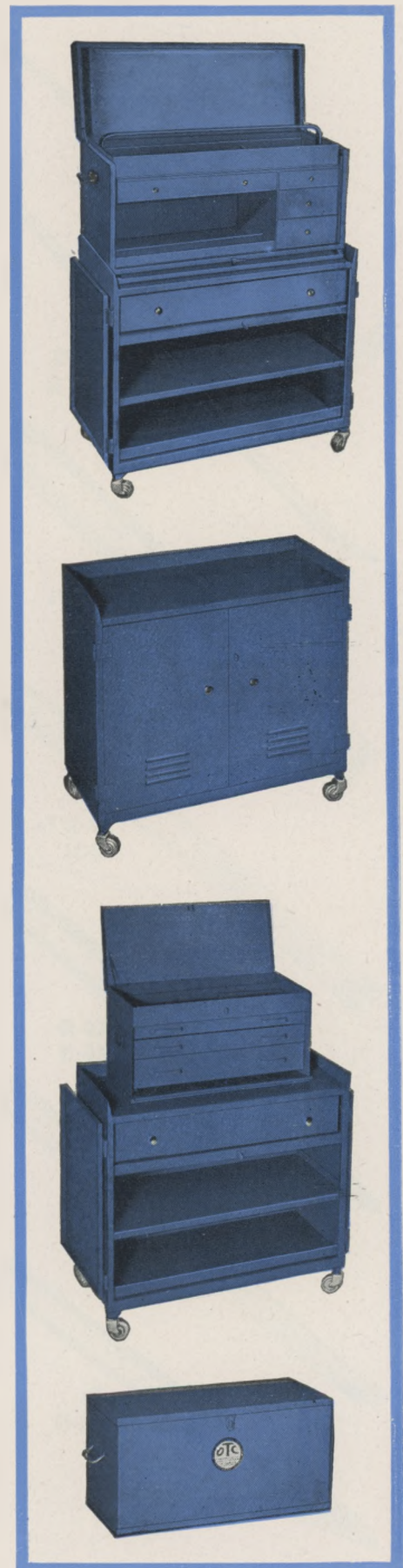
No. 110

Built of heavy gauge metal and of welded construction throughout, the new OTC Standard Chest will meet every requirement for a medium priced tool chest. It is compactly built to provide a maximum of storage space and will accommodate a great many small hand tools. A socket compartment runs all the way across the top tray to hold a complete set of standard sockets. There is an additional small compartment for junior sockets as well. The top tray is 2 $\frac{1}{4}$ " deep.

Three drawers all 21" long, and 1 $\frac{1}{2}$ ", 2" and 3" deep respectively which operate on compound slides provide room for socket handles, end wrenches, box wrenches, screw drivers, etc.

The box itself is 22" long, 8 $\frac{3}{4}$ " wide, 9 $\frac{1}{2}$ " deep.

No. 110—Standard Chest. Wt. 30 lbs.





OTC PRY BARS

One of the handiest and most popular Pry Bars ever built. It combines the advantages of a lining-up punch with the usefulness of a pry. An exceptionally good tool for lifting stuck valves, body joints, cylinder heads and for prying loose gears, grease cups, bushings, etc. Truly a tool of many uses.
 No. PB-43—Pry Bar, $\frac{9}{16}$ " round, 15" long. Wt. $1\frac{1}{2}$ lbs.
 No. PB-45—Pry bar, $\frac{3}{4}$ " round, 18" long. Wt. 2 lbs.

OTC JIMMY BARS

OTC Jimmy Bars are available in popular sizes to fit practically any maintenance requirement for this kind of tool. Built of Chrome Vanadium steel and heat-treated overall to assure strength and long life, these tools are essential in every service kit.
 No. PB-18—Jimmy Bar, 18" long, $\frac{5}{8}$ " round. Wt. $1\frac{1}{4}$ lbs.
 No. PB-24—Jimmy Bar, 24" long, $\frac{3}{4}$ " round. Wt. $2\frac{1}{4}$ lbs.
 No. PB-30—Jimmy Bar, 30" long, $\frac{7}{8}$ " round. Wt. $4\frac{1}{4}$ lbs.

OTC COLD CHISELS

OTC Cold Chisels are built of new close-grained high alloy steel which is extremely tough and which readily lends itself to a new and more advanced method of heat-treatment. The result is a chisel that stays sharp longer and provides a cutting edge that stands up under severe use. No finer chisels are made anywhere.
 No. CC-25—Set 6 Chisels, CC-8 to CC-24 incl. Wt. $2\frac{1}{4}$ lbs.

No.	Stock	Bit	Length	Weight
CC-8	$\frac{1}{4}$ "	$\frac{5}{16}$ "	5"	1 oz.
CC-10	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$5\frac{1}{2}$ "	2 oz.
CC-12	$\frac{3}{8}$ "	$\frac{7}{16}$ "	6"	3 oz.
CC-16	$\frac{1}{2}$ "	$\frac{9}{16}$ "	$6\frac{1}{2}$ "	5 oz.
CC-20	$\frac{5}{8}$ "	$\frac{3}{4}$ "	7"	9 oz.
CC-24	$\frac{3}{4}$ "	$\frac{7}{8}$ "	8"	14 oz.

Packed 12 to a carton.

MECHANICS FLAT CHISEL

New OTC Flat Chisels are built of the finest, close-grained alloy steel to provide strength and toughness necessary for long life and good service. With their long flat tapered bits these chisels will work in places where ordinary chisels will not go. They are hand-forged and heat-treated in electrically controlled furnaces to provide that extra quality not found in other chisels. Use OTC Flat Chisels once and you will use no other.
 No. FC-25—Complete Set of 5 listed below. Wt. $2\frac{1}{4}$ lbs.

No.	Stock	Bit	Length	Weight
FC-10	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$5\frac{1}{2}$ "	2 oz.
FC-12	$\frac{3}{8}$ "	$\frac{7}{16}$ "	$6\frac{1}{2}$ "	3 oz.
FC-16	$\frac{1}{2}$ "	$\frac{9}{16}$ "	$6\frac{1}{2}$ "	5 oz.
FC-20	$\frac{5}{8}$ "	$\frac{3}{4}$ "	7"	9 oz.
FC-24	$\frac{3}{4}$ "	$\frac{7}{8}$ "	$7\frac{3}{4}$ "	14 oz.

Packed 12 to a carton.

OTC SPECIAL CHISELS

OTC Special Chisels are furnished in Diamond Point, Cape and Round Nose. The narrow-bit cape chisels are available in two sizes for cutting in close places. The Diamond Point is designed to cut V-grooves and the Round Nose is excellent for cutting or cleaning oil grooves. All OTC special chisels are built of high alloy steel and thoroughly heat-treated for long service.

No.	Stock	Bit	Length	Weight
Cape No. XC-10	$\frac{5}{16}$ "	$\frac{1}{4}$ "	5"	2 oz.
Cape No. XC-16	$\frac{1}{2}$ "	$\frac{3}{8}$ "	$6\frac{1}{2}$ "	5 oz.
Diamond Point No. DP-16	$\frac{1}{2}$ "	$\frac{1}{4}$ "	$6\frac{1}{2}$ "	5 oz.
Round Nose No. RN-16	$\frac{1}{2}$ "	$\frac{5}{16}$ "	$6\frac{1}{2}$ "	5 oz.

OTC SLIM TAPER PUNCHES



OTC Taper Punches are made of the same high grade steel and under the same specifications as OTC Chisels and consequently will resist chipping, bending and mushrooming either on the point or head. Exceptional values.

No.	Stock	Bit	Length	Weight
TP-8	1/4"	1/8"	5"	1 oz.
TP-10	5/16"	3/16"	6"	2 oz.
TP-12	3/8"	1/4"	7"	3 oz.
TP-16	1/2"	5/16"	8"	5 oz.
TP-20	5/8"	3/4"	9"	10 oz.
TP-24	3/4"	7/8"	10"	15 oz.

No. TP-25—Set of 6 No. TP-8 to TP-24 inclusive. Wt. 2 1/4 lbs.



OTC Combined Punch and Chisel Set No. PC-25

A combination of the CC-25 set of chisels (page 82) and TP-25 set of taper punches (above), that makes a complete set. Chisels furnished in this set are CC-8, CC-10, CC-12, CC-16, CC-20 and CC-24. Taper Punches are TP-8, TP-10, TP-12, TP-16, TP-20 and TP-24, all complete in leatherette kit.

No. PC-25—Combined Punch and Chisel Set. Wt. 4 1/2 lbs.

OTC PIN PUNCHES



Long and straight, OTC Pin Punches are necessities in every mechanics' tool kit. Furnished in three most popular sizes, built of high alloy steel and heat-treated throughout.

No.	Stock	Bit	Length	Weight
PP-6	1/2"	3/16"	7"	4 oz.
PP-8	1/2"	1/4"	7"	4 oz.
PP-10	1/2"	5/16"	7"	5 oz.

No. PP-25—Set of 3 Pin Punches. Wt. 3/4 lbs.

OTC STARTER PUNCHES



A good starter punch should always be used to loosen stuck pins before driving them out with a pin punch. Hand-forged from Chrome Vanadium steel and fully heat-treated for strength.

No.	Stock	Bit	Length	Weight
SP-6	1/2"	3/16"	6 1/2"	4 oz.
SP-8	1/2"	1/4"	6 1/2"	5 oz.
SP-10	1/2"	5/16"	6 1/2"	5 oz.

OTC CENTER PUNCHES

A complete set of Chrome Vanadium Center Punches that every mechanic should have. Furnished in six most popular sizes.

No. CP-25—Set of 6 Punches. Wt. 1 1/2 lbs.

No.	Stock	Length	Weight
CP-8	1/4"	3"	1 oz.
CP-10	5/16"	3 1/2"	1 oz.
CP-12	3/8"	4"	2 oz.
CP-16	1/2"	4 1/2"	4 oz.
CP-20	5/8"	5"	6 oz.
CP-24	3/4"	5 1/2"	9 oz.



OTC MIDGET PUNCH AND CHISEL SET

A compact, handy set of small tools, all hand-forged, and fully heat-treated.

Consists of one each of the following all listed separately on pages 82 and 83: TP-8, TP-10, CC-8, CC-10, XC-10, CP-10, MP-2, MP-3, MP-4 and MP-5.



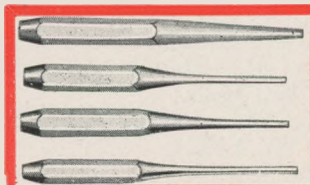
No. MPC-25—Midget Punch and Chisel Set. Wt. 3/4 lb.

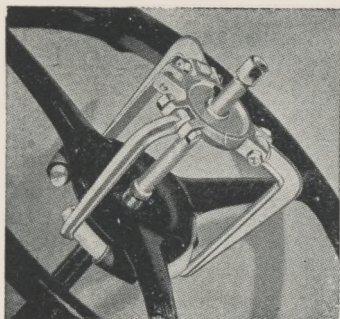
OTC MAGNETO PIN PUNCHES

Built for use on generators, magnetos and other electrical work where small pins must be removed.

MP-26—Set of four Punches. Wt. 3 oz.

No.	Bit	Lgth.	Wt.
MP-2	1/16"	3"	1 oz.
MP-3	3/32"	3"	1 oz.
MP-4	1/8"	3"	1 oz.
MP-5	1/4"	3"	1 oz.





STEERING WHEEL PULLER No. 853

The OTC Steering Wheel Puller is a universal tool that will pull a majority of the steering wheels on practically all makes and models of automobiles. It works also on some trucks and tractors. Having three

adjustable legs it will pull steering wheels regardless of the number of spokes.

The steel ring against which the tool pulls is equipped with rubber cushions to prevent marring the wheel.

No. 853—Steering Wheel Puller, as illustrated. Wt. $2\frac{3}{4}$ lbs.

No. 853-B—Steering Post Nipple for Buick. Wt. 1 oz.

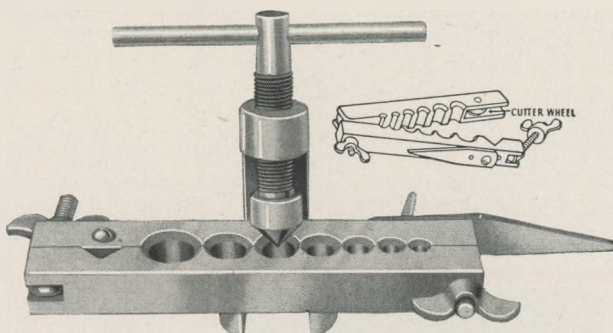
No. 853-L—Large Puller Ring for Chrysler and General Motors cars. Wt. $\frac{3}{4}$ lb.

No. 853-A—Steering Wheel Puller. Complete. Wt. $3\frac{1}{2}$ lbs.

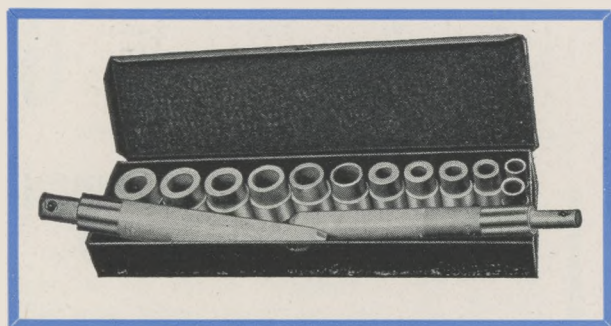
TUBE FLARING AND CUTTING TOOL NUMBER 835

Seven flaring dies are provided on this tool to permit flaring all popular sizes of tubing used on automobiles, aircraft, refrigeration, etc. Gives just the right taper and assures a perfect tight fitting joint and does this job without clamping the tool in a vise or using other means for holding it.

It will handle $\frac{3}{16}$ ", $\frac{1}{4}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ ", $\frac{7}{16}$ ", $\frac{1}{2}$ " and $\frac{5}{8}$ " tubing without flattening or distortion. The tool has a built-in cutter that eliminates the need for a special tool, and includes a reamer which folds back against the tool when not in use.



No. 835—Tube Flaring Tool and Cutter, complete. Wt. 2 lbs.



OTC BUSHING DRIVER SET

NO. 818

A complete range of driving collars with two handles to fit, built especially to remove and replace bushings on Tie Rods, Spindles, Water Pumps, Pistons, Connecting Rods, Generators, Steering Gears, Distributors, Transmissions, Spring Bushings, etc. For use on automobiles, trucks, electric motors and other equipment using bushings of this type.

Metal Box No. 890 is $10\frac{1}{2}$ " x $2\frac{3}{4}$ " x $1\frac{1}{8}$ ".

No.	Bushing I. D.	Bushing O. D.	Wt. Oz.	No.	Bushing I. D.	Bushing O. D.	Wt. Oz.
800	$\frac{1}{2}$ "	$\frac{5}{8}$ "	2	807	$\frac{7}{8}$ "	1"	$3\frac{1}{2}$
801	$\frac{9}{16}$ "	$\frac{11}{16}$ "	2	807-A	$\frac{7}{8}$ "	$\frac{15}{16}$ "	4
802	$\frac{5}{8}$ "	$\frac{3}{4}$ "	3	808	$\frac{15}{16}$ "	$\frac{1}{2}$ "	4
803	$\frac{11}{16}$ "	$\frac{13}{16}$ "	3	809	1"	$\frac{1}{2}$ "	$4\frac{1}{2}$
803-C	$\frac{23}{32}$ "	$\frac{27}{32}$ "	3	810	$\frac{1}{16}$ "	$\frac{13}{16}$ "	5
804	$\frac{3}{4}$ "	$\frac{7}{8}$ "	3	811	$\frac{1}{8}$ "	$\frac{1}{4}$ "	5
806	$\frac{13}{16}$ "	$\frac{15}{16}$ "	3				

No. 813—Handle, $\frac{5}{8}$ " drive, fits 800 to 804, incl. Wt. $\frac{1}{2}$ lb.

No. 814—Handle, $\frac{7}{8}$ " drive, fits 806 to 811 incl. Wt. 1 lb.

No. 818—Set, 13 sizes, 2 handles in case. Wt. $3\frac{3}{4}$ lbs.

HEAVY DUTY BUSHING SET

NO. T-818

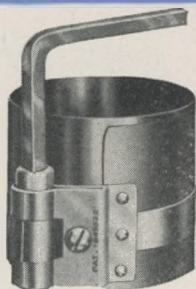
The No. T-818 Bushing Driver Set is designed to install and remove bushings without damage and is built particularly for use on trucks, tractors and other heavy equipment.

It includes six sizes of collars with one driving handle to take care of the most popular sizes of bushings found on heavy equipment. Furnished in a substantial metal box No. 890 which is $10\frac{1}{2}$ " x $2\frac{3}{4}$ " x $1\frac{1}{8}$ ".

No.	Bushing I. D.	Bushing O. D.	Wt. Oz.	No.	Bushing I. D.	Bushing O. D.	Wt. Oz.
T-806	$\frac{1}{16}$ "	$\frac{1}{16}$ "	4	T-809	$\frac{1}{8}$ "	$\frac{1}{8}$ "	6
T-807	$\frac{1}{4}$ "	$\frac{1}{2}$ "	5	T-810	$\frac{1}{16}$ "	$\frac{11}{16}$ "	7
T-808	$\frac{15}{16}$ "	$\frac{19}{16}$ "	5	T-811	$\frac{1}{2}$ "	$\frac{3}{4}$ "	8

No. 815—Driving Handle, $1\frac{1}{8}$ " to fit six sizes. Wt. 2 lbs.

No. T-818—Set, 6 sizes with handle in case. Wt. 5 lbs



OTC RING COMPRESSOR

NO. 868

Built of Swedish Blue Spring steel with a compression tape also made of tough Swedish steel and tempered to withstand excessive tension, this ring compressor does an excellent job. The short L handle provides the power and is removable. The band is flared on the lower edge to prevent the tool from entering the cylinder when the piston is pushed down with the block. Furnished in two sizes. The small size for cars and the larger size for trucks and tractors.

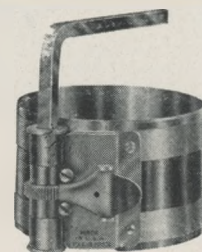
No. 868—Compressor, $2\frac{1}{2}$ " to 5". Wt. 7 oz.

No. 868-T—Compressor, $3\frac{1}{2}$ " to 7". Wt. 8 oz.



RATCHET RING COMPRESSOR

NO. 849



A new type ratchet ring compressor that holds the tension on the rings at the desired point. Pressure is applied by turning the handle and easily and quickly relieved by releasing the ratchet pawl. An automatic friction brake is controlled by two screws on either side of the ratchet pawl and can be adjusted as desired. The latest thing in ring compressors and a decided improvement over other types. Furnished in two sizes.

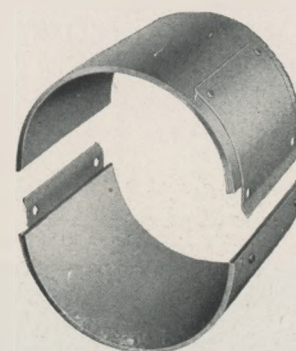
No. 849—Compressor, $2\frac{1}{2}$ " to 5". Wt. 9 oz.

No. 849-T—Compressor, $3\frac{1}{2}$ " to 7". Wt. 10 oz.

DIESEL RING COMPRESSOR No. HC-686

This compressor has been designed especially for use on International Harvester Industrial tractor "14" and "18" Diesel engines. This tool is approved by IHC and is recommended to all International industrial dealers and users. It is used on the factory assembly line and provides the best method for compressing these rings. Operation: Place the connecting rod with piston in a vise with brass jaws. Assemble the ring compressor over the rings and press the two halves of the tool together until the clips snap in place.

No. HC-686—Ring Compressor. Wt. 3 lbs.



NO. 846

RING GROOVE CLEANER

A universal tool that will work on pistons ranging in size from the smallest up to 6" in diameter. Scraper blades operate at a uniform spring tension and the angle of the cutter provides a non-gouging, non-chattering action that permits a smooth, clean finish. It is easy to operate and is fast operating because it is easily adjustable to any size piston up to six inches. An ideal tool for every mechanic who works on cars, trucks or tractors. The cutter carries four sizes: $\frac{3}{32}$ ", $\frac{1}{8}$ ", $\frac{5}{32}$ ", and $\frac{3}{16}$ " covering most of the sizes used on cars and trucks.

No. 846—Ring Groove Cleaner. Wt. 8 oz.

No. 846-A—Cutter (only).

NO. JD-869



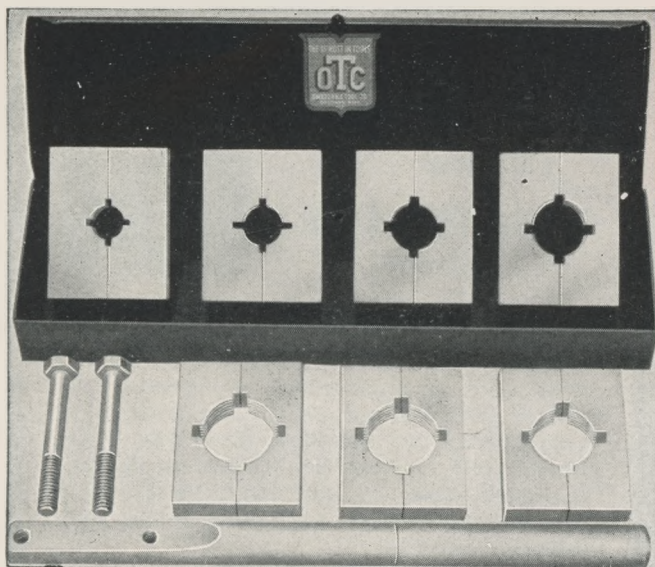
Improved

RING COMPRESSOR

Consisting of five flexible bands and one pair of compressor tongs this tool is highly recommended for work on all makes of tractors. It will work on pistons from $3\frac{5}{16}$ " to $6\frac{3}{4}$ " which takes in a majority of tractors made. Bands are made of flexible material $2\frac{1}{8}$ " wide which easily conforms to the contour of the piston, and are crimped to prevent them from entering the cylinder bore. Includes bands JD-869-C,

JD-869-D, JD-869-E, JD-869-F and JD-869-G.

No. JD-869—Ring Compressor with 5 bands. Wt. $2\frac{3}{4}$ lbs.



SPECIFICATIONS

Tool No.	Size and Thread	Weight
TC-20	$\frac{5}{8}$ "-18	9 oz.
TC-24	$\frac{3}{4}$ "-16	9 oz.
TC-28	$\frac{7}{8}$ "-14	8 oz.
TC-32	1"-14	7 oz.
TC-36	$1\frac{1}{8}$ "-12	6 oz.
TC-40	$1\frac{1}{4}$ "-12	4 oz.
TC-48	$1\frac{1}{2}$ "-12	4 oz.



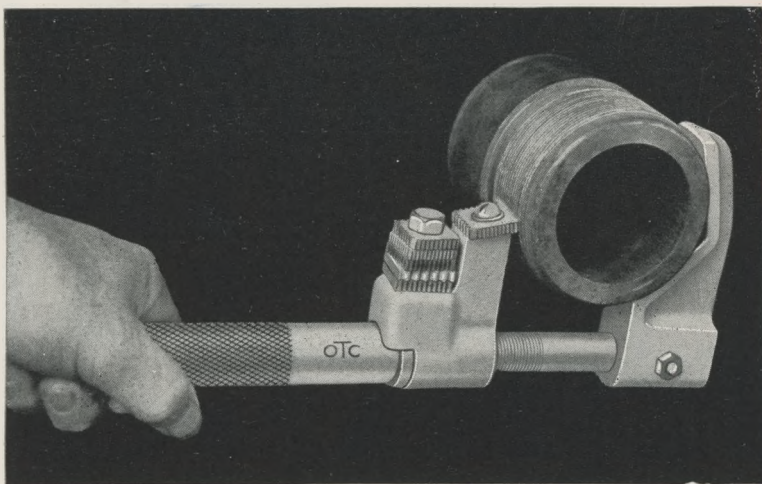
UNIT THREAD CHASER



The OTC Unit Thread Chaser has become increasingly popular with automotive maintenance men because it does a difficult job that otherwise consumes a great deal of time. It is particularly effective for use in straightening and cleaning up damaged or crossed threads on axle shafts, drive shafts, cam shafts, etc. Seven unit sizes are available as shown in the table and each unit die can be used on the same handle. Only popular sizes to fit axles, cam shafts, etc. in automobiles are furnished and a compact set as shown at the left is available comprising the most common sizes used in garages.

No. TC-7 Thread Chaser Set contains TC-20, $\frac{5}{8}$ "; TC-24, $\frac{3}{4}$ "; TC-28, $\frac{7}{8}$ "; TC-32, 1"; TC-36, $1\frac{1}{8}$ "; TC-40, $1\frac{1}{4}$ "; TC-48, $1\frac{1}{2}$ "; TC-10 Handle in a compact metal case. Wt. 5 lbs.

No. TC-10—Handle (only) 10" long. Wt. 1 lb.



UNIVERSAL OUTSIDE THREAD CHASER No. 897

To operate: Apply the tool on the good threads, tighten slightly and then back the tool off over the damaged threads. Pressure should be increased slightly on each succeeding cut until damaged threads are restored. Brass pad and individual chaser dies are not guaranteed and can be purchased at a nominal price.

These dies are furnished with the complete tool but may also be purchased separately. For tool parts, see price list in back of catalog.

No. 896-A—Die, 8, 10, 12, 14 threads per inch.

No. 896-B—Die, 16, 18, 20, 24 threads per inch.

No. 896-C—Die, 8", $1\frac{1}{2}$ threads per inch.

No. 896-E—Die, 4, 5 threads per inch.

No. 896-F—Die, 6, 7 threads per inch.

No. 896-F—Die, $7\frac{1}{2}$, 9 threads per inch.

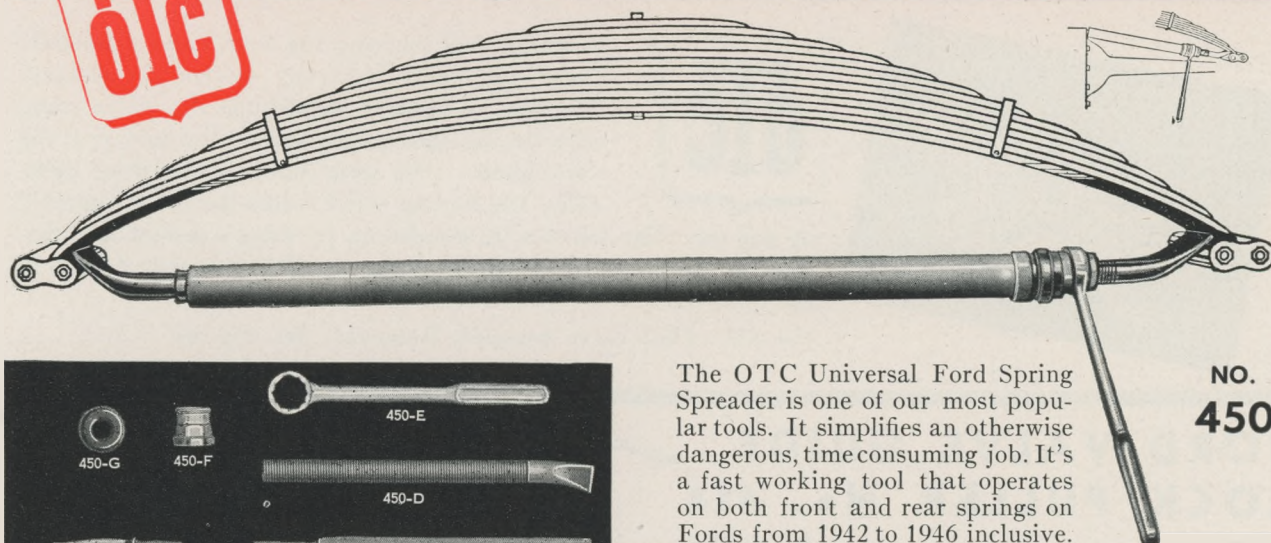
No. 897—Universal Thread Chaser complete with 6 chaser dies. Wt. 4 lbs.

One of the most popular tools in the entire OTC line and an exceptionally useful one in any maintenance shop. With this tool it is possible to save enough time to pay for it many times over in one operation. It simplifies an otherwise time consuming, expensive and difficult repair job.

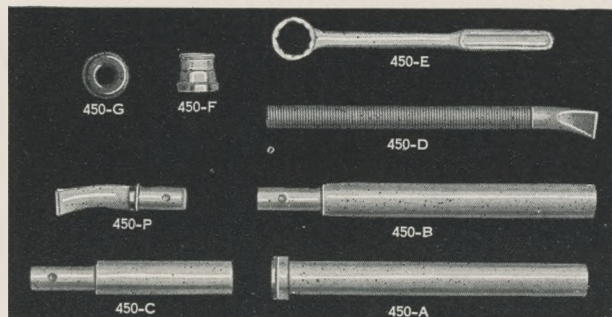
This tool will restore battered and damaged threads on axle shafts, axle housings, cages, etc., from $1\frac{1}{4}$ " to 5" in diameter. It is quickly and easily adjusted to the desired size and the actual operation is a simple one. It eliminates the necessity of taking an axle or housing out of an assembly and putting it in a lathe to restore the threads.



UNIVERSAL FORD SPRING SPREADER



NO.
450



Models	Rear Spring	Front Spring
A & B 1928 to 1933	Use A & D as shown	Use A, C, P & D
V-8 1932, 1933, 1934	Use A, C, B, P, D	Use A, C, P, D
V-8 1935 to 1946	Use A, C, B, P, D	Use A, P, B, D

The OTC Universal Ford Spring Spreader is one of our most popular tools. It simplifies an otherwise dangerous, time-consuming job. It's a fast working tool that operates on both front and rear springs on Fords from 1942 to 1946 inclusive. A ratchet-acting wrench supplies the necessary power and the entire assembly is made from high alloy steel to provide rigidity and strength. The No. 450 Spring Spreader is comprised of those parts listed and illustrated in the accompanying picture, and the combination of parts used for each model are listed also at the left. Parts prices are listed in the parts price list at the back of the catalogue.

The line drawing, upper right, shows how this tool is used on Model A rear springs. For other models use combinations at the left.

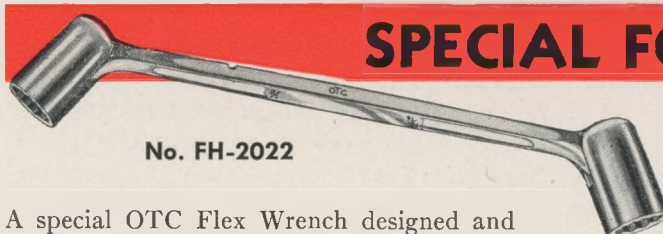
Shock Absorber Link Separator

No. 462



For removing Ford Shock Links and Tie Rod Joints this tool is the fastest working tool made. After removing the nut from the tapered bolt holding the shock absorber link, the wedge-shaped fork is placed between the shock absorber link and the shock arm. A few sharp blows on the end of the tool with a hammer forces the tapered bolt out of the shock arm quickly and easily. This tool is equally efficient for separating tie rod joints and is used in the same manner on this job. Distance between fork jaws is $\frac{5}{8}$ ".

No. 462—Shock Link Separator, 12" long. Wt. $2\frac{1}{4}$ lbs.



No. FH-2022

SPECIAL FORD FLEX WRENCH

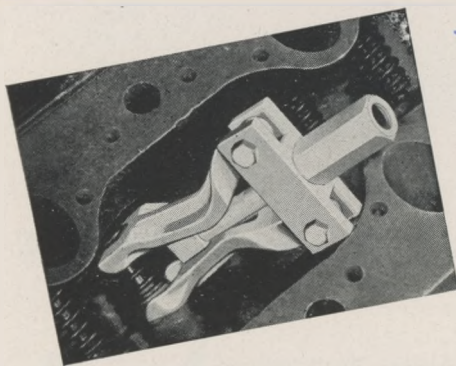
A special OTC Flex Wrench designed and built particularly for Ford mechanics. It carries the two most popular sizes used on Ford cars and Ford men will find it to be the handiest wrench they have ever used.

It is one of a set of wrenches that has caught the

fancy of thousands of maintenance men. The complete set is shown on page 60. This Ford special Flex Wrench is 10" long and has a $\frac{5}{8}$ " twelve point socket on one end and a $\frac{11}{16}$ " twelve point socket on the other end. Both sockets flex over to work in any position 180° from the wrench handle. This feature permits its use in many places where conventional wrenches cannot operate.

No. F-2022—Ford Special Flex Wrench. Wt. $\frac{3}{4}$ lbs.

FORD VALVE ASSEMBLY REMOVER NO. 455



A special tool for removing Ford Valve assemblies faster and easier than any system yet devised. The tool is inserted straddling the valve stem, with the top half bearing against the bottom of the valve guide. The lever action obtained by tightening the forcing screw forces the valve assembly up and out. The job can be speeded up by using a socket and ratchet on the nut. This remover works on all V-8 models as well as the Ford tractor.

No. 455—Ford Valve Assembly Remover. Wt. $2\frac{1}{4}$ lbs.

FORD VALVE GUIDE LOCK PULLER No. 414

The quickest and easiest way to remove a Ford Valve Guide Lock is to use this OTC tool. The tapered end of the tool is inserted into the eye of the guide



lock and with a quick prying action the locks can be pulled. Works on V-8 cars and Ford tractor. Packed 6 to a carton.

No. 414—Ford Valve Guide Lock Puller. Wt. $1\frac{3}{4}$ lbs.

V-8 CON ROD SOCKET

NUMBER 423



A specially built, thin wall hexagon socket for use on V-8 Ford connecting rod nuts. This socket is built with a hexagon opening to prevent wear and give longer life to the tool. Works on

all V-8 Fords and is used with any conventional $\frac{1}{2}$ " drive handle. Because of the nature of the work this socket must do, it is not guaranteed. Packed 12 to a carton.

No. 423—Ford V-8 Con Rod Socket. Wt. per doz. $1\frac{1}{4}$ lbs.



PITMAN ARM WEDGE No. 844

The OTC Pitman Arm Wedge is built for removing Pitman arms and on other similar operations. In one fast, simple operation these jobs can be done with an OTC Wedge without additional equipment. The wedge end of the tool is placed or driven between the parts to be removed and a few sharp blows with a hammer accomplishes an otherwise

difficult job. This easy method takes the place of complicated tools which oftentimes cannot be used in close quarters and because of surrounding obstructions. This tool works on practically all late model cars and on many trucks as well. $1\frac{1}{8}$ " between wedge prongs, 12" long.

No. 844—Pitman Arm Wedge. Wt. $1\frac{1}{2}$ lbs.

MAGNETO SNAP RING PLIER AND PICK



88

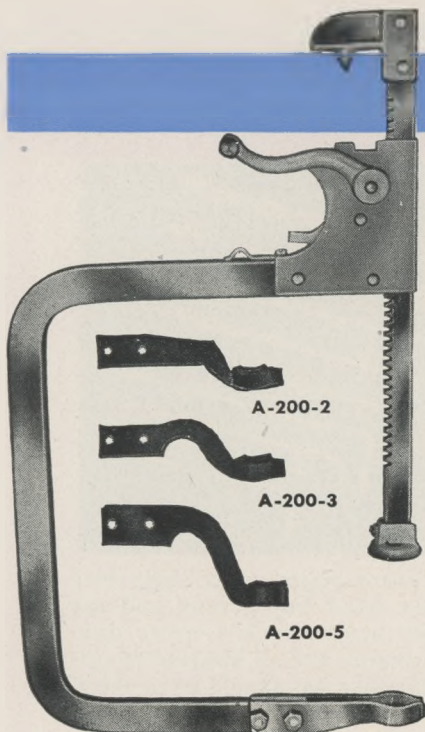
A new combination of tools which was designed and built especially for removing wire snap rings from magneto armature shafts. This is a difficult operation since

these snap rings are usually inaccessible and hard to get at. The jaws of the plier are ground to permit engaging both ends of the snap ring and expanding it enough to get behind it with the MT-61 Pick. The Pick is used as a pry to pry the snap ring from the groove after it has been expanded with the plier.

No. MT-60—Magneto Snap Ring Plier. Wt. per doz. 3 lbs.

No. MT-61—Snap Ring Pick. Wt. per doz. 12 oz.

No. MT-64—Magneto Plier and Pick Set. Wt. per doz. 4 lbs.



LITTLE WONDER VALVE LIFTER

Long recognized as the most universal and versatile C-type Valve Spring Compressor on the market. It is adaptable to practically all makes of cars, will operate very successfully on trucks and is just as valuable on many makes of tractors.

The ratcheting action, its positive vertical lift and the clearance it provides all combine to make this tool a popular one among mechanics. It is also equipped with a recompression arrangement for quick, easy compression of valve springs.

Each lifter comes equipped with one pair of straight, spring steel removable jaws (as illustrated) and a set of three spring holders.

Additional jaws are available to give these Valve Lifters a wider scope of utility. Extra jaws are interchangeable with both sizes. Offset jaws are very practical where motors have low block clearance at the valve cover plate.

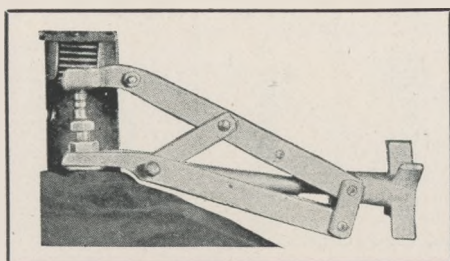
No. A-200—Valve Lifter, 11" x 11" frame. Wt. 6½ lbs.

No. B-300—Valve Lifter for Trucks and Tractors, 11" x 13" frame. Wt. 9 lbs.

No. A-200-2—Special Jaws. Wt. 3 oz.

No. A-200-3—Special Jaws. Wt. 3 oz.

No. A-200-5—Special Jaws. Wt. 3 oz.



STUBBY VALVE LIFTER No. A-100

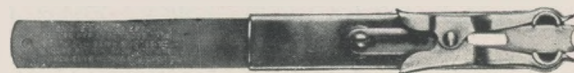
A new type valve lifter of extremely practical design, this tool is short and compact to permit operation in tight places around manifolds, carburetors, fuel lines, fuel pumps, tappet lid studs, etc. It will work successfully and easily on practically all makes of cars and on a great many trucks. The white metal pressure knob reduces friction and turns easily. The lift is straight and this little tool is guaranteed to lift up to 300 pounds.

No. A-100—Stubby Valve Lifter. Wt. 1¼ lbs.

VALVE LOCK REPLACER

No. 851-A

Easy to load and operate, this new tool gets into tight places to replace split valve locks on practically all makes of cars and trucks. It holds the split locks firmly until they are placed in position and the valve

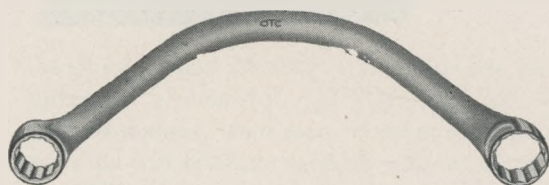


spring is lowered.

This tool should be used with the No. A-100 Stubby Valve Lifter illustrated above for best results.

No. 851-A—Valve Lock Replacer. Wt. 4 oz.

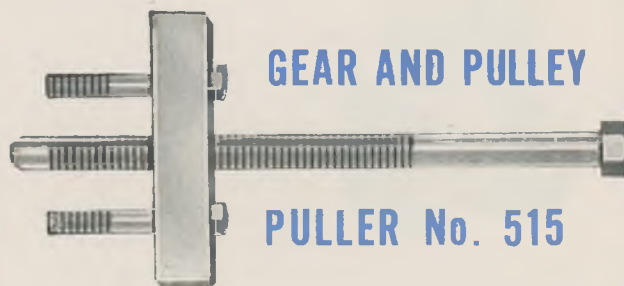
CHEVROLET STARTER WRENCH



Two half-moon wrenches that work successfully on all model Chevrolet starters and which make play out of this tough job. The popular size 12 point box openings on these wrenches make them extremely practical on many other jobs as well. Very practical on automobiles, trucks and tractors.

No. 531—Starter Wrench, 5/8"-3/4". Wt. 9 oz.

No. 511—Starter Wrench, 5/8"-9/16". Wt. 7 oz.



GEAR AND PULLEY

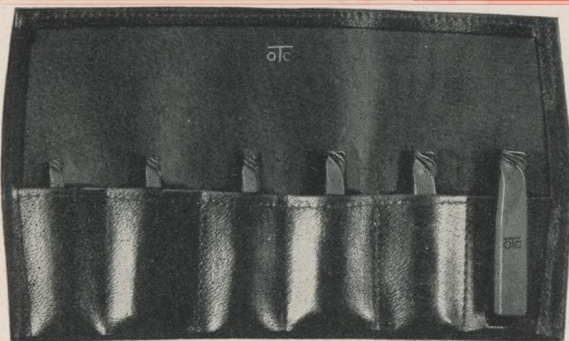
PULLER No. 515

Designed especially for pulling Chevrolet Fan Pulleys, but is a very practical tool for pulling timing gears and other parts as well. The slotted block permits a wide range of adjustments. The screw is long enough to reach through the crank hole so the fan pulley can be pulled without removing the radiator. This tool can also be used with the OTC Pulling Attachment No. 950 as illustrated on page 13.

No. 515—Fan Pulley Puller. (as shown) Wt 2 lbs.

No. 515-S—Forcing Screw, (only) 95/8" long. Wt. 1 lb.

SCREW EXTRACTORS



Made of special alloy steel and heat-treated for strength and toughness OTC Screw Extractors do one of the toughest jobs in maintenance. To operate, drill a shallow hole in part to be removed and then start the screw extractor. The stud or broken part can then be screwed out.

No. 876—Set of 4 Nos. 872, 873, 874, 875. Wt. 8 oz.

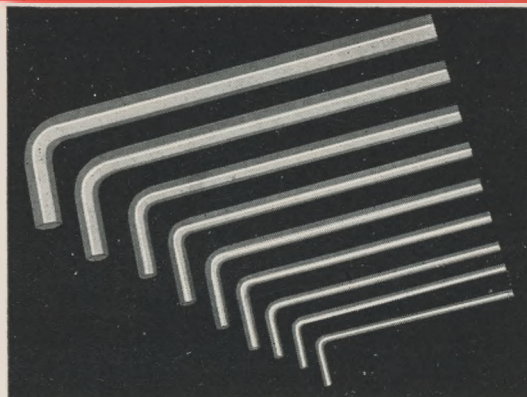
No. 877—Set of 6 sizes complete. Wt. 14 oz.

No. 877-A—Set of 6 with HiSpeed Drills to match. Wt. 1 1/4 lbs.

No. 877-B—Set of 6 with carbon drills to match. Wt. 1 1/4 lbs.

No.	For Bolt Dia.	Use Drill Size	Drill Depth	Wt.
870	5/8" and up	7/16"	5/16"	2 oz.
871	1/2" to 5/8"	3/8"	5/16"	2 oz.
872	7/16" to 1/2"	1/4"	1/4"	2 oz.
873	3/8" to 7/16"	1/4"	1/4"	1 oz.
874	5/16" to 3/8"	3/16"	3/16"	1 oz.
875	1/4" to 5/16"	5/32"	3/16"	1 oz.

SET SCREW WRENCHES



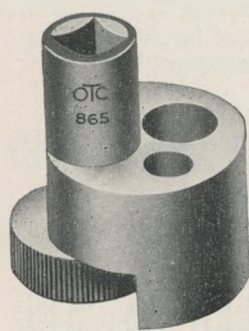
Indispensable in every maintenance shop since the use of hollow head cap screws and set screws is becoming more extensive every day. Used on engines, motors and all kinds of equipment. This inexpensive set should be in every mechanic's kit.

No. W-13—Set of 9 wrenches. Wt. 1 lb.

No.	Size	Fits Set Screws	Fits HH Cap Screws
W-2	5/64"	8	..
W-3	3/32"	10 & 12	..
W-4	1/8"	1/4"	8
W-5	5/16"	5/16"	10
W-6	3/16"	3/8"	1 1/4"
W-7	7/32"	7/16"	5/16"
W-8	1/4"	1/2"	3/8"
W-10	5/16"	5/8"	3/8" & 7/16"
W-12	3/8"	3/4"	1/2"

STUD PULLER No. 865

Capacity 1/4" to 3/4"



A tried and tested Stud Puller that every automotive and tractor maintenance man should have in his kit. It operates with any 1/2" square drive socket handle and has a wider range of use than most similar stud pullers on the market.

Another distinctive feature is the snap-on

knurled wheel. This wheel is held in place with a compression ball and spring, and when it becomes worn can easily be removed and replaced with a new wheel. Because of the nature of the work required of this tool the knurled wheel is not guaranteed and can be purchased separately. Packed 6 to a carton.

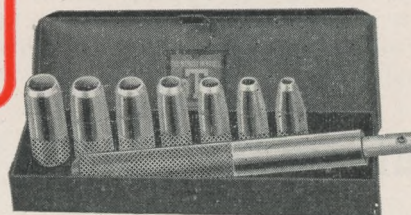
No. 865—Stud Puller. Wt. 1 lb.

No. 865-A—Knurled Wheel (only). Wt. 2 oz.

HOLLOW PUNCH SET



NUMBER HP-7



This set contains 7 sizes of hollow punches, 1/4", 5/16", 3/8", 7/16", 1/2", 9/16" and 5/8" covering a complete range of sizes most commonly used in gaskets. One driving mandrel fits all sizes and the set is contained in a metal box. These hollow punches are used also for cutting holes in rubber hose for heater connections, washers, etc. When punching holes in gaskets, rubber, etc. use a wood block for a base. Do not use for cutting holes in metal. Packed one set per carton.

No. HP-7—Hollow Punch Set. Wt. 1 3/4 lbs.

PRICE LIST AND NUMERICAL INDEX

Applying to Catalog No. 47

List and Dealer's Net Prices



All orders accepted and priced on the basis of this price list will be invoiced at the prices prevailing at the time of shipment.

LIST PRICES shown are used only as a basis for discounts.

DEALER'S NET prices represent a discount of 40% from LIST and are the recommended retail prices.

TERMS

CASH DISCOUNT: 2% Cash discount will be allowed on payment of invoices on or before the 10th prox. Discounts are allowable on the NET amount of the invoice. Prices are subject to change without notice.

FREIGHT PREPAID ON 100 LBS.

SHIPPING TERMS: Freight will be prepaid on all shipments totaling 100 pounds or more. Shipments under 100 pounds are F. O. B. shipping point.

GUARANTEE

OTC Tools are guaranteed against defects in materials and workmanship. Tools found not defective will not be replaced. Any tool that has been abused, worn out, heated, ground, or otherwise altered, or used for a purpose other than that for which it was intended will not be replaced. Final determination of defects must be made at the factory.

NOTICE: Government regulations controlling finishes materials, sizes and types, and shortages of materials may make substitutions necessary without notice or regard to catalogue descriptions. We also reserve the right to make changes in design or construction without obligation to incorporate such changes in tools previously sold.

FINISH

Because of shortages and restrictions placed on certain finishing materials that are no longer available, the finish applied to OTC tools will be the best available at the time the tools are produced.

* * * * *

Where sets are ordered, the items not available at the time of shipment will be cancelled from the set and the price of the cancelled items deducted from the total cost of the set. Where possible, adequate substitutions will be made.

Owatonna Tool Company

Owatonna, Minnesota
U. S. A.

PRINTED IN U. S. A.

Tool No.	Description	List Dealer's		
		Price	Net	Page
15-M	Male Plug Adaptor.....	1.00	.60	11
16-M	Male Plug Adaptor.....	1.00	.60	11
17-M	Male Plug Adaptor.....	1.00	.60	11
20-M	Male Plug Adaptor.....	1.00	.60	11
24-M	Male Plug Adaptor.....	1.00	.60	11
25-M	Male Plug Adaptor.....	1.00	.60	11
28-M	Male Plug Adaptor.....	1.08	.65	11
29-M	Male Plug Adaptor.....	1.08	.65	11
32-M	Male Plug Adaptor.....	1.17	.70	11
36-M	Male Plug Adaptor.....	1.25	.75	11
37-M	Male Plug Adaptor.....	1.00	.60	11
39-M	Male Plug Adaptor.....	1.00	.60	11
41-M	Male Plug Adaptor.....	1.00	.60	11
43-M	Male Plug Adaptor.....	1.00	.60	11
20-P	Male Plug Adaptor.....	1.58	.95	11
24-P	Male Plug Adaptor.....	1.58	.95	11
25-P	Male Plug Adaptor.....	1.42	.85	11
28-P	Male Plug Adaptor.....	2.00	1.20	11
29-P	Male Plug Adaptor.....	2.00	1.20	11
36-P	Male Plug Adaptor.....	2.00	1.20	11
100-B	Master Wrench Set.....	228.62	137.00	74
101	Master Chest.....	39.92	23.95	80
101-A	Tote Tray 25" x 8" x 2".....	5.50	3.30	80
102-B	Mechanics Wrench Set.....	138.30	82.80	74
103-A	Super Service Set.....	224.02	134.20	73
104-A	Super Service Set.....	165.93	99.35	73
105	Master totter.....	89.33	53.60	80
106	DeLuxe Toolmaster.....	138.50	83.10	80
107	DeLuxe Tool Chest.....	49.17	29.50	80
107-A	Tote Tray.....	4.25	2.55	80
109	Standard Tooltoter.....	52.50	31.50	81
110	Standard Tool Chest.....	26.25	15.75	81
112	$\frac{3}{8}$ " Socket $\frac{1}{2}$ " Drive.....	1.00	.60	68
114	$\frac{1}{16}$ " Socket $\frac{1}{2}$ " Drive.....	1.08	.65	68
116	$\frac{1}{2}$ " Socket $\frac{1}{2}$ " Drive.....	1.08	.65	68
117	Standard Toolmaster.....	92.42	55.45	81
118	$\frac{3}{8}$ " Socket $\frac{1}{2}$ " Drive.....	1.08	.65	68
119	$\frac{1}{16}$ " Socket $\frac{1}{2}$ " Drive.....	1.08	.65	68
120	$\frac{5}{8}$ " Socket $\frac{1}{2}$ " Drive.....	1.08	.65	68
121	$\frac{1}{2}$ " Socket $\frac{1}{2}$ " Drive.....	1.17	.70	68
122	$\frac{1}{16}$ " Socket $\frac{1}{2}$ " Drive.....	1.17	.70	68
124	$\frac{3}{4}$ " Socket $\frac{1}{2}$ " Drive.....	1.25	.75	68
125	$\frac{2}{32}$ " Socket $\frac{1}{2}$ " Drive.....	1.25	.75	68
126	$\frac{13}{16}$ " Socket $\frac{1}{2}$ " Drive.....	1.33	.80	68
127	$\frac{13}{16}$ " Tie Rod Socket $\frac{1}{2}$ " Drive.....	1.33	.80	69
128	$\frac{7}{8}$ " Socket $\frac{1}{2}$ " Drive.....	1.33	.80	68
129	$\frac{13}{16}$ " Tie Rod Socket $\frac{1}{2}$ " Drive.....	1.33	.80	69
130	$\frac{15}{16}$ " Socket $\frac{1}{2}$ " Drive.....	1.50	.90	68
131	$\frac{31}{32}$ " Socket $\frac{1}{2}$ " Drive.....	1.50	.90	68
132	1" Socket $\frac{1}{2}$ " Drive.....	1.67	1.00	68
134	$\frac{1}{16}$ " Socket $\frac{1}{2}$ " Drive.....	1.83	1.10	68
135	Standard Toolmaster.....	78.75	47.25	81
136	$\frac{1}{16}$ " Socket $\frac{1}{2}$ " Drive.....	1.92	1.15	68
138	$\frac{13}{16}$ " Socket $\frac{1}{2}$ " Drive.....	1.92	1.15	68
140	$\frac{1}{4}$ " Socket $\frac{1}{2}$ " Drive.....	1.92	1.15	68
185	Mechanics Set.....	82.98	49.80	74
188	Socket Set.....	23.57	14.15	72
195	Metal Tray.....	1.83	1.10	72
199	Tool Chest.....	10.83	6.50	74
212	$\frac{3}{8}$ " Socket $\frac{3}{4}$ " Drive.....	.92	.55	75
214	$\frac{7}{16}$ " Socket $\frac{3}{4}$ " Drive.....	.92	.55	75
216	$\frac{1}{2}$ " Socket $\frac{3}{4}$ " Drive.....	.92	.55	75
218	$\frac{9}{16}$ " Socket $\frac{3}{4}$ " Drive.....	.92	.55	75
220	$\frac{5}{8}$ " Socket $\frac{3}{4}$ " Drive.....	.92	.55	75
222	$\frac{11}{16}$ " Socket $\frac{3}{4}$ " Drive.....	1.00	.60	75
224	$\frac{3}{4}$ " Socket $\frac{3}{4}$ " Drive.....	1.00	.60	75
282	Socket Set.....	20.09	12.05	78
328	$\frac{7}{8}$ " Socket $\frac{3}{4}$ " Drive.....	1.67	1.00	64
330	$\frac{15}{16}$ " Socket $\frac{3}{4}$ " Drive.....	1.67	1.00	64
332	1" Socket $\frac{3}{4}$ " Drive.....	1.83	1.10	64
334	$\frac{1}{16}$ " Socket $\frac{3}{4}$ " Drive.....	1.92	1.15	64
336	$\frac{1}{8}$ " Socket $\frac{3}{4}$ " Drive.....	2.00	1.20	64
338	$\frac{13}{16}$ " Socket $\frac{3}{4}$ " Drive.....	2.08	1.25	64
340	$\frac{1}{4}$ " Socket $\frac{3}{4}$ " Drive.....	2.17	1.30	64
342	$\frac{15}{16}$ " Socket $\frac{3}{4}$ " Drive.....	2.33	1.40	64
344	$\frac{1}{8}$ " Socket $\frac{3}{4}$ " Drive.....	2.42	1.45	64
346	$\frac{1}{16}$ " Socket $\frac{3}{4}$ " Drive.....	2.67	1.60	64
348	$\frac{1}{2}$ " Socket $\frac{3}{4}$ " Drive.....	3.00	1.80	64
352	$\frac{15}{8}$ " Socket $\frac{3}{4}$ " Drive.....	3.33	2.00	64
354	$\frac{11}{16}$ " Socket $\frac{3}{4}$ " Drive.....	3.92	2.35	64
356	$\frac{13}{4}$ " Socket $\frac{3}{4}$ " Drive.....	4.09	2.45	64
358	$\frac{13}{16}$ " Socket $\frac{3}{4}$ " Drive.....	4.66	2.80	64
360	$\frac{1}{8}$ " Socket $\frac{3}{4}$ " Drive.....	4.75	2.85	64
364	2" Socket $\frac{3}{4}$ " Drive.....	5.88	3.50	64

Tool No.	Description	List Dealer's		
		Price	Net	Page
368	$2\frac{1}{8}$ " Socket $\frac{3}{4}$ " Drive.....	6.67	4.00	64
370	$2\frac{3}{16}$ " Socket $\frac{3}{4}$ " Drive.....	7.50	4.50	64
372	$2\frac{1}{4}$ " Socket $\frac{3}{4}$ " Drive.....	8.33	5.00	64
376	$2\frac{3}{8}$ " Socket $\frac{3}{4}$ " Drive.....	9.17	5.50	64
414	Valve Guide Lock Puller.....	2.75	1.65	88
423	V-8 Con Rod Socket.....	1.08	.65	88
450	Ford Spring Spreader.....	24.92	14.95	87
455	Valve Assembly Remover.....	7.91	4.75	88
462	Shock Link Separator.....	5.00	3.00	87
491	Ford Sleeve Replacer.....	33.15	19.89	48
491-A	Ford Sleeve Replacer.....	42.47	25.48	48
491-1	Sleeve Replacer Plate.....	7.50	4.50	48
491-2	Spacers (Set of 4).....	1.00	.60	48
491-3	Bottom Adaptor.....	4.66	2.80	48
491-4	Upper Adaptor.....	4.66	2.80	48
491-5	Pusher Stud.....	2.00	1.20	48
491-10	Pusher Assembly.....	13.33	8.00	48
492	Ford Sleeve Remover.....	3.75	2.25	48
511	Chev. Starter Wrench.....	2.50	1.50	89
515	Gear & Pulley Puller.....	6.41	3.85	89
515-S	Forcing Screw (only).....	2.50	1.50	89
531	Starter Wrench.....	2.75	1.65	89
614	Snap Ring Pliers.....	3.75	2.25	49
615	Piston Ring Pliers.....	4.58	2.75	50
620	Snap Ring Set.....	13.58	8.15	49
620-A	Lifting Cam $\frac{1}{4}$ ".....	1.42	.85	49
620-B	Lifting Cam $\frac{3}{8}$ ".....	1.42	.85	49
620-C	Lifting Cam $\frac{1}{2}$ ".....	1.42	.85	49
620-F	Wedge $\frac{5}{16}$ ".....	1.08	.65	49
620-G	Wedge $\frac{3}{8}$ ".....	1.08	.65	49
620-H	Wedge $\frac{1}{2}$ ".....	1.08	.65	49
620-K	Wedge $\frac{5}{8}$ ".....	1.08	.65	49
620-P	Snap Ring Set Less 614.....	9.83	5.90	49
620-S	Snap Ring Box (only).....	1.25	.75	49
625-A	Shaft Protector Set.....	4.00	2.40	12
625-1	Shaft Protector $1\frac{1}{2}$ ".....	.58	.35	12
625-2	Shaft Protector $1\frac{1}{4}$ ".....	.58	.35	12
625-3	Shaft Protector 1".....	.50	.30	12
625-4	Shaft Protector $\frac{3}{4}$ ".....	.50	.30	12
625-5	Shaft Protector $\frac{5}{8}$ ".....	.42	.25	12
625-6	Shaft Protector $\frac{1}{2}$ ".....	.42	.25	12
630-1	Step Plate 1" x $\frac{3}{4}$ ".....	.42	.25	11
630-2	Step Plate $1\frac{1}{8}$ " x $\frac{7}{8}$ ".....	.50	.30	11
630-3	Step Plate $1\frac{1}{4}$ " x 1".....	.58	.35	11
630-4	Step Plate $1\frac{3}{8}$ " x $1\frac{1}{8}$ ".....	.67	.40	11
630-5	Step Plate $1\frac{5}{8}$ " x $1\frac{1}{4}$ ".....	.83	.50	11
630-6	Step Plate $1\frac{3}{4}$ " x $1\frac{3}{8}$ ".....	1.00	.60	11
630-7	Step Plate $1\frac{7}{8}$ " x $1\frac{1}{2}$ ".....	1.00	.60	11
630-8	Step Plate 2" x $1\frac{1}{8}$ ".....	1.17	.70	11
630-9	Step Plate $2\frac{1}{8}$ " x $1\frac{3}{4}$ ".....	1.33	.80	11
630-10	Step Plate $2\frac{3}{8}$ " x $1\frac{7}{8}$ ".....	1.50	.90	11
630-11	Step Plate $2\frac{1}{2}$ " x 2".....	1.75	1.05	11
630-12	Step Plate $2\frac{5}{8}$ " x $2\frac{1}{8}$ ".....	1.83	1.10	11
630-13	Step Plate $2\frac{3}{4}$ " x $2\frac{1}{4}$ ".....	2.00	1.20	11
630-14	Step Plate $2\frac{7}{8}$ " x $2\frac{3}{8}$ ".....	2.42	1.45	11
630-15	Step Plate 3" x $2\frac{1}{2}$ ".....	2.67	1.60	11
630-16	Step Plate $3\frac{1}{4}$ " x $2\frac{3}{4}$ ".....	3.00	1.80	11
630-17	Step Plate $3\frac{1}{2}$ " x 3".....	3.50	2.10	11
630-A	Pulling Bar.....	15.58	9.35	13
630-B	Pulling Bar.....	22.90	13.74	13
630-C	Pulling Bar.....	41.23	24.75	13
630-D	Pulling Bar.....	54.06	32.44	13
630-L	Special Step Plate.....	1.42	.85	36
630-S	Step Plate Set.....	10.75	6.45	11
630-T	Step Plate Set.....	15.42	9.25	11
640	Ring Groove Cleaner.....	4.92	2.95	50
640-C	Ring Groove Cleaner Cutter (only).....	.92	.55	50
644	Push Rod Sleeve Puller.....	5.83	3.50	39
645	Push Rod Sleeve Driver.....	1.25	.75	39
646	Push-Rod Sleeve Set.....	7.08	4.25	39
679	Sheave Pulling Attachment.....	7.91	4.75	7
680	Sheave Pulling Attachment.....	27.49	16.49	7
712	Slip Joint Plier.....	1.92	1.15	74
714	Horseshoe Lock Ring Plier.....	2.75	1.65	79
717	Vise Grip Wrench.....	2.75	1.65	79
718	Vise Grip Wrench.....	3.25	1.95	79
727	Screw Starter $2\frac{1}{2}$ ".....	2.00	1.20	79
728	Screw Starter $5\frac{1}{2}$ ".....	2.25	1.35	79
729	Screw Starter $9\frac{1}{4}$ ".....	2.50	1.50	79
736	Screw Driver $4\frac{1}{4}$ " O. A.....	.83	.50	74
737-A	Screw Driver 6" O. A.....	1.25	.75	73
738	Screw Driver $12\frac{1}{2}$ " O. A.....	1.58	.95	74
739	Screw Driver $3\frac{1}{4}$ " O. A.....	1.42	.85	74
740	Screw Driver 10" O. A.....	1.83	1.10	74

Tool No.	Description	List Dealer's			Tool No.	Description	List Dealer's		
		Price	Net	Page			Price	Net	Page
741	Screw Driver 14" O. A.	2.08	1.25	73	930-E	Legs for Push-Puller 4 1/2" (pr.)	4.58	2.75	8
800	Bushing Driver Collar	.58	.35	84	930-J	Leg-ends for Clutch Dr. Disc (pr.)	2.33	1.40	37
801	Bushing Driver Collar	.58	.35	84	930-L	Legs for Push-Puller Special (pr.)	5.34	3.20	36
802	Bushing Driver Collar	.58	.35	84	931	Bushing Extractor Attach	3.75	2.25	12
803	Bushing Driver Collar	.58	.35	84	932	Threaded Adaptor 1" - 14	1.08	.65	11
803-C	Bushing Driver Collar	.58	.35	84	932-A	Threaded Adaptor 1" Special	1.17	.70	37
804	Bushing Driver Collar	.58	.35	84	932-B	Threaded Adaptor 1"	1.83	1.10	11
804-A	Bushing Driver Collar	.58	.35	44	932-L	Threaded Adaptor, Special	2.00	1.20	36
806	Bushing Driver Collar	.83	.50	84	933	Bushing Extractor Attach	4.58	2.75	12
807	Bushing Driver Collar	.83	.50	84	935	Bushing Extractor Attach	5.50	3.30	12
807-A	Bushing Driver Collar	.83	.50	84	936	Threaded Adaptor 1 1/2" - 12	1.25	.75	11
807-B	Bushing Driver Collar	.83	.50	44	936-A	Threaded Adaptor	2.00	1.20	11
808	Bushing Driver Collar	.83	.50	84	937	Bushing Extractor Attach	6.41	3.85	12
809	Bushing Driver Collar	.83	.50	84	938	Push-Puller with 930-D 9 1/2" legs	29.83	17.90	8
809-A	Bushing Driver Collar	.83	.50	44	938-A	Flywheel Pulling Attach	10.00	6.00	40
810	Bushing Driver Collar	.83	.50	84	938-B	Crankshaft Adaptor	4.58	2.75	40
811	Bushing Driver Collar	.83	.50	84	938-C	Crankshaft Adaptor	5.00	3.00	40
813	Bushing Driver Mandrel	1.42	.85	84	938-D	Crankshaft Adaptor	4.08	2.45	40
814	Bushing Driver Mandrel	1.83	1.10	84	938-E	Crankshaft Adaptor	4.00	2.40	40
815	Bushing Driver Mandrel	2.33	1.40	84	938-F	Camshaft Adaptor	1.33	.80	40
818	Bushing Driver Set	13.91	8.35	84	938-G	Gear Housing Adaptor Plugs (pr.)	1.83	1.10	40
826-V	Ford Hub Puller Attachment	7.25	4.35	14	938-H	Gear Housing Adaptor Plugs (pr.)	1.83	1.10	40
827-B	Universal Hub Puller	25.08	15.05	14	938-I	Flywheel Adaptor	3.75	2.25	40
835	Flaring & Cutting Tool	8.25	4.95	84	938-J	Swivel Sleeve Extension	7.50	4.50	47
844	Pitman Arm Wedge	5.83	3.50	88	938-K	Spline Shaft Collet	5.00	3.00	40
846	Ring Groove Cleaner	2.92	1.75	85	938-L	Flywheel Adaptor Plate	1.67	1.00	40
846-A	Ring Groove Cutter (only)	.92	.55	85	938-M	Flywheel Adaptor Plate	1.58	.95	40
849	Ring Compressor	3.67	2.20	85	938-N	Flywheel Key Plate	.67	.40	40
849-T	Ring Compressor (Truck)	4.58	2.75	85	938-P	Push-Puller with 938-PA 8" legs	47.67	28.60	8
851-A	Valve Lock Insert	3.50	2.10	89	938-PA	Legs, 938-P Push-Puller 8" (pr.)	7.50	4.50	8
853	Steering Wheel Puller	12.08	7.25	84	938-PB	Legs, 938-P Push-Puller 18" (pr.)	12.50	7.50	8
853-A	Steering Wheel Puller	14.25	8.55	84	938-PC	Legs, 938-P Push-Puller 28" (pr.)	22.50	13.50	8
853-B	Steering Wheel Puller Nipple	.50	.30	84	939	Push-Puller with 939-A 8" legs	67.48	40.49	8
853-L	Steering Wheel Puller Ring	1.67	1.00	84	939-A	Legs, 939 Push-Puller 8" (pr.)	11.67	7.00	8
860	Thickness Gauge	1.83	1.10	74	939-B	Legs, 939 Push-Puller 18" (pr.)	17.34	10.40	8
864	Thickness Gauge	3.25	1.95	52	939-C	Legs, 939 Push-Puller 28" (pr.)	23.34	14.00	8
865	Stud Puller	5.17	3.10	90	940	Threaded Adaptor 1 1/2" - 12	1.33	.80	11
865-A	Stud Puller Knurled Wheel (only)	1.50	.90	90	940-A	Threaded Adaptor 1 1/2"	2.17	1.30	11
866	Ignition Gauge	2.00	1.20	74	941	Threaded Adaptor 1 1/2" - 7	1.33	.80	11
868	Ring Compressor	2.00	1.20	85	941-A	Threaded Adaptor 1 1/2"	2.17	1.30	11
868-T	Ring Compressor (Truck)	2.75	1.65	85	943	Bearing Cup Pulling Attach	20.00	12.00	9
870	Screw Extractor	.92	.55	90	943-A	Bearing Cup Pulling Attach	20.00	12.00	9
871	Screw Extractor	.92	.55	90	943-A1	Long Arms (only) for 943 (pr.)	11.08	6.65	37
872	Screw Extractor	.92	.55	90	943-C	Bearing Cup Pulling Attach	16.67	10.00	9
873	Screw Extractor	.92	.55	90	943-C1	Short Arms (only) for 943 (pr.)	9.17	5.50	37
874	Screw Extractor	.92	.55	90	943-C2	Short Pin Arms (only) for 943 (pr.)	9.17	5.50	31
875	Screw Extractor	.92	.55	90	943-D	Bearing Pulling Attachment	33.90	20.35	9
876	Screw Extractor Set	3.67	2.20	90	943-T	Slide Hammer Puller	26.92	16.15	9
876-A	876 Screw Extractor Set in Kit	4.42	2.65	90	943-S	Slide Hammer Assembly (only)	6.92	4.15	9
877	Screw Extractor Set	5.50	3.30	90	944	Pinion Shaft Attach	9.17	5.50	13
877-A	Screw Extractor & Drill Set	18.50	11.10	90	945	Timing Gear Attach	4.58	2.75	12
877-B	Screw Extractor & Drill Set	11.00	6.60	90	946	Valve Guide Attach	2.25	1.35	12
877-C	No. 877-A Set in kit	19.59	11.75	90	947	Bearing Cup Pulling Attach	47.75	28.65	9
877-D	No. 877-B Set in kit	12.08	7.25	90	948	Threaded Adaptor 1 1/2"	1.67	1.00	11
885	Spanner Wrench	6.58	3.95	50	948-A	Threaded Adaptor 1 1/2"	2.75	1.65	11
886	Spanner Wrench	8.75	5.25	50	949	Threaded Adaptor 1 1/2" - 7	2.00	1.20	11
887	Chain Wrench	6.66	4.00	79	949-A	Threaded Adaptor 1 1/2"	2.75	1.65	11
887-A	Chain (only) for 887	2.75	1.65	79	950	Bearing Pulling Attach	6.41	3.85	7
888	Chain Wrench	10.00	6.00	79	951	Bearing Pulling Attach	17.08	10.25	7
888-A	Chain (only) for 888	3.50	2.10	79	952	Bearing Pulling Attach	22.49	13.49	7
890	Metal Box 10 1/2" x 2 3/4" x 1 1/8"	1.42	.85	78	952-A	Bearing Pulling Attach	24.16	14.50	7
896-A	Thread Chaser Die	1.83	1.10	86	952-B	5/8" x 12 3/4" Bolts for 952 (pr.)	5.50	3.30	35
896-B	Thread Chaser Die	1.83	1.10	86	952-C	9 1/2" Bolts for 952 (pair)	6.41	3.85	24
896-C	Thread Chaser Die	.92	.55	86	952-D	Bearing Pulling Attach	34.15	20.50	7
896-E	Thread Chaser Die	.92	.55	86	953	Bearing Pulling Attach	57.48	34.49	7
896-F	Thread Chaser Die	.92	.55	86	954	Pilot Bearing Puller	11.41	6.85	13
896-G	Thread Chaser Die	.92	.55	86	954-A	Slide Hammer Assembly (only)	4.75	2.85	13
897	Thread Chaser Complete	16.33	9.80	86	954-B	Pilot Bearing Puller	12.50	7.50	13
916	Threaded Adaptors	.83	.50	11	955	Pilot Bearing Puller Attach	6.66	4.00	12
917	Flange & Pulley Puller	4.08	2.45	12	956	Pilot Bearing Puller Attach	7.75	4.65	12
919	Threaded Adaptor Set	6.50	3.90	11	956-A	Pilot Bear. Puller Arms (only, pr.)	3.67	2.20	12
920	Threaded Adaptor 5/8" - 18	.83	.50	11	956-B	Bridge Assembly (only)	2.50	1.50	12
924	Threaded Adaptor 3/4" - 16	.92	.55	11	970	Sleeve Puller	27.49	16.49	46
925	Threaded Adaptor 3/4" - 20	1.00	.60	11	970-O	Sleeve Puller Plate 3 1/4"	2.17	1.30	46
926	Threaded Adaptor 1 1/8" - 16	1.00	.60	11	970-1	Sleeve Puller Plate 3"	1.83	1.10	46
927	Push-Puller with 927-A Legs	21.66	13.00	8	970-2	Sleeve Puller Plate 3 1/8"	2.08	1.25	46
927-A	Legs, 927 Push-Puller 6 3/4" (pr.)	4.17	2.50	8	970-3	Sleeve Puller Plate 3 1/4"	2.17	1.30	46
927-B	Legs, 927 Push-Puller 15 3/4" (pr.)	4.58	2.75	8	970-4	Sleeve Puller Plate 3 3/8"	2.33	1.40	46
928	Threaded Adaptor 3/8" - 14	1.08	.65	11	970-4B	Sleeve Puller Plate 3 5/16"	2.33	1.40	46
929	Threaded Adaptor 7/8" - 18	1.08	.65	11	970-4H	Sleeve Puller Plate 3 3/8"	2.33	1.40	46
930	Push-Puller with 930-D 9 1/2" legs	26.17	15.70	8	970-5	Sleeve Puller Plate 3 1/2"	2.50	1.50	46
930-B	Legs for Push-Puller 16 1/2" (pr.)	7.17	4.30	8	970-5C	Sleeve Puller Plate 3 7/16"	2.50	1.50	46
930-C	Legs for Push-Puller 22 1/2" (pr.)	9.17	5.50	8	970-6	Sleeve Puller Plate 3 5/8"	2.50	1.50	46
930-D	Legs for Push-Puller 9 1/2" (pr.)	5.34	3.20	8	970-7	Sleeve Puller Plate 3 3/4"	2.67	1.60	46

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970-8	Sleeve Puller Plate 3 7/8"	2.75	1.65 46
970-8M	Sleeve Puller Plate 3 7/8"	2.75	1.65 46
970-9	Sleeve Puller Plate 4"	2.92	1.75 46
970-10	Sleeve Puller Plate 4 1/8"	3.08	1.85 46
970-11	Sleeve Puller Plate 4 1/4"	3.17	1.90 46
970-12	Sleeve Puller Plate 4 3/8"	3.33	2.00 46
970-13	Sleeve Puller Plate 4 1/2"	3.50	2.10 46
970-14	Sleeve Puller Plate 4 5/8"	3.67	2.20 46
970-15	Sleeve Puller Plate 4 3/4"	3.83	2.30 46
970-16	Sleeve Puller Plate 4 7/8"	4.00	2.40 46
970-17	Sleeve Puller Plate 5"	4.17	2.50 46
970-18	Sleeve Puller Plate 5 1/8"	4.25	2.55 46
970-19	Sleeve Puller Plate 5 1/4"	4.50	2.70 46
970-20	Sleeve Puller Plate 5 3/8"	4.66	2.80 46
970-21	Sleeve Puller Plate 5 1/2"	4.75	2.85 46
970-22	Sleeve Puller Plate 5 5/8"	4.91	2.95 46
970-23	Sleeve Puller Plate 5 3/4"	5.16	3.10 46
970-24	Sleeve Puller Plate 5 7/8"	5.33	3.20 46
970-25	Sleeve Puller Plate 6"	5.50	3.30 46
980	Combination Puller	12.83	7.70 13
1001	Grip-o-matic Puller	10.00	6.00 4
1001-2	Two-way Head (only)	2.75	1.65 20
1001-A	Grip-o-matic Puller	10.00	6.00 44
1001-L	Grip-o-matic Puller	11.91	7.15 4
1002	Grip-o-matic Puller	20.00	12.00 4
1002-L	Grip-o-matic Puller	22.91	13.75 4
1003	Grip-o-matic Puller	30.24	18.14 4
1003-L	Grip-o-matic Puller	33.90	20.34 4
1003 1/2	Grip-o-matic Puller	47.06	28.24 4
1003 1/2-L	Grip-o-matic Puller	55.81	33.49 4
1004	Grip-o-matic Puller	64.14	38.48 4
1004-L	Grip-o-matic Puller	73.30	43.98 4
1005	Grip-o-matic Puller	87.05	52.23 4
1005-L	Grip-o-matic Puller	100.79	60.47 4
1006	Grip-o-matic Puller	149.11	89.47 4
1006-L	Grip-o-matic Puller	164.52	98.71 4
1011	Grip-o-matic Triple Grip Puller	14.50	8.70 5
1011-L	Grip-o-matic Triple Grip Puller	17.24	10.34 5
1012	Grip-o-matic Triple Grip Puller	27.07	16.24 5
1012-L	Grip-o-matic Triple Grip Puller	31.82	18.79 5
1013	Grip-o-matic Triple Grip Puller	39.73	23.84 5
1013-L	Grip-o-matic Triple Grip Puller	45.23	27.14 5
1013 1/2	Grip-o-matic Triple Grip Puller	63.84	38.00 5
1013 1/2-L	Grip-o-matic Triple Grip Puller	76.49	45.89 5
1014	Grip-o-matic Triple Grip Puller	84.65	50.79 5
1014-L	Grip-o-matic Triple Grip Puller	98.42	59.05 5
1015	Grip-o-matic Triple Grip Puller	110.18	66.10 5
1015-L	Grip-o-matic Triple Grip Puller	131.40	78.84 5
1016	Grip-o-matic Triple Grip Puller	193.15	115.89 5
1016-L	Grip-o-matic Triple Grip Puller	221.28	132.77 5
1201-A	Budd Wheel Wrench complete	37.91	22.75 14
1201-1A	Budd Wheel Wr. Inner Socket	5.00	3.00 14
1201-1B	Budd Wheel Wr. Short Bar	2.58	1.55 14
1201-2	Budd Wheel Wr. Outer Socket	11.25	6.75 14
1201-4	Budd Wheel Wrench Jack	7.16	4.30 14
1201-5A	Budd Wheel Wr. Box Wrench	6.00	3.60 14
1201-5B	Budd Wheel Wrench Long Bar	3.17	1.90 14
1201-6	Budd Wheel Wrench Adaptor	2.75	1.65 14
*1214	15° Box Wrench 3/8" x 7/16"	1.67	1.00 59
1418	Spark Plug Hole Thread Chaser	2.25	1.35 79
*1618	15° Box Wrench 1/2" x 5/8"	1.75	1.05 59
*1820	15° Box Wrench 5/8" x 3/4"	1.83	1.10 59
*2022	15° Box Wrench 3/4" x 7/8"	2.00	1.20 59
*2024	15° Box Wrench 7/8" x 1"	2.08	1.25 59
*2428	15° Box Wrench 1" x 1 1/8"	2.58	1.55 59
*3032	15° Box Wrench 1 1/8" x 1 1/4"	2.92	1.75 59

ITEMS WITH PREFIX

*A-3	Set 3 Box Wrenches 15°	5.42	3.25 59
*A-3L	A-3 Set in Leatherette Kit	6.41	3.85 59
*A-4	Set 4 Box Wrenches 15°	7.33	4.40 59
*A-4L	A-4 Set in Leatherette Kit	8.33	5.00 59
*A-5	Set 5 Box Wrenches 15°	10.92	6.55 59
*A-5L	A-5 Set in Leatherette Kit	12.17	7.30 59
*A-6	Set 6 Box Wrenches 15°	12.83	7.70 59
*A-6L	A-6 Set in Leatherette Kit	14.50	8.70 59
A-100	Stubby Valve Lifter	3.42	2.05 89
A-200	Valve Lifter	11.91	7.15 89
A-200-2	Valve Lifter Jaws	1.83	1.10 89
A-200-3	Valve Lifter Jaws	2.25	1.35 89
A-200-5	Valve Lifter Jaws	2.25	1.35 89

*Not available for 6 months.

Tool No.	Description	List Dealer's	
		Price	Net Page
AC	Allis-Chalmers Puller Board (only)		6.00 32
AC-7	A-C Hydraulic Pump Set	4.75	2.85 33
AC-10	Honing Stone	.58	.35 52
AC-17	A-C Special Puller set (tools only)	54.00	32.40 30
AC-612	A-C Puller set (tools only)	187.41	112.45 32
AC-627	A-C Brake Drum Leg Ends	2.50	1.50 32
AC-628	A-C Pump Flange Puller	3.17	1.90 32
AC-629	A-C Impeller Puller Collar	2.25	1.35 32
AC-631	A-C Camshaft Bushing Driver	6.25	3.75 33
AC-635	Allis-Chalmers Bearing Attach	9.00	5.40 33
AS-20	Aviation Set Puller Board (only)		7.25 22
AS-21	Aviation Puller Set (tools only)	253.61	152.17 22
AS-26	Aviation Set Puller Board (only)		12.00 20
AS-27	Aviation Puller Set (tools only)	463.00	277.80 20
AV-8	Avery Spec. Puller Set (tools only)	38.50	23.10 30
AV-16	Avery Com. Pull. Set (tools only)	165.48	99.29 30
B-300	Heavy Duty Valve Lifter	15.66	9.40 89
B-1214	45° Box Wrench 3/8" x 7/16"	1.42	.85 59
B-1618	45° Box Wrench 1/2" x 5/8"	1.50	.90 59
B-2022	45° Box Wrench 5/8" x 3/4"	1.83	1.10 59
B-2425	45° Box Wrench 3/4" x 7/8"	2.00	1.20 59
B-2628	45° Box Wrench 7/8" x 1"	2.17	1.30 59
B-3032	45° Box Wrench 1 1/8" x 1 1/4"	2.83	1.70 59
BA-3	Set 3 Box Wrenches 45°	4.75	2.85 59
BA-3L	BA-3 Set in Leatherette Kit	5.75	3.45 59
BA-4	Set 4 Box Wrenches 45°	6.75	4.05 59
BA-4L	BA-4 Set in Leatherette Kit	7.83	4.70 59
BA-5	Set 5 Box Wrenches 45°	8.92	5.35 59
BA-5L	BA-5 Set in Leatherette Kit	10.17	6.10 59
BA-6	Set 6 Box Wrenches 45°	11.75	7.05 59
BA-6L	BA-6 Set in Leatherette Kit	13.42	8.05 59
BP-16	Ball Pein Hammer 1 lb.	3.33	2.00 74
BP-32	Ball Pein Hammer 2 lbs.	3.75	2.25 74
C-1	Combination Wrench Set	20.83	12.50 61
C-1L	C-1 Set in Leatherette Kit	23.34	14.00 61
C-2	Combination Wrench Set	14.33	8.60 61
C-2L	C-2 Set in Leatherette Kit	16.00	9.60 61
C-3	Combination Wrench Set	12.17	7.30 61
C-3L	C-3 Set in Leatherette Kit	13.84	8.30 61
C-12	Combination Wrench 3/4"	1.42	.85 61
C-13	Case Spec. Puller Set (tools only)	66.66	40.00 30
C-14	Combination Wrench 1/16"	1.50	.90 61
C-16	Combination Wrench 1/8"	1.58	.95 61
C-18	Combination Wrench 3/16"	1.67	1.00 61
C-20	Combination Wrench 1/4"	1.83	1.10 61
C-22	Combination Wrench 5/16"	2.00	1.20 61
C-24	Combination Wrench 3/8"	2.17	1.30 61
C-26	Combination Wrench 7/16"	2.42	1.45 61
C-28	Combination Wrench 1/2"	2.42	1.45 61
C-30	Combination Wrench 5/8"	2.83	1.70 61
C-32	Combination Wrench 1"	3.00	1.80 61
C-34	Combination Wrench 1 1/16"	3.67	2.20 61
C-36	Combination Wrench 1 1/8"	4.17	2.50 61
C-40	Combination Wrench 1 1/4"	5.00	3.00 61
C-42	Combination Wrench 1 5/16"	5.42	3.25 61
C-46	Combination Wrench 1 7/16"	6.25	3.75 61
C-637	Case Puller Set (tools only)	196.47	117.88 35
C-648	Special Case Puller Adaptor	3.00	1.80 35
C-648-A	Extra Pin for C-648	.50	.30 35
C-649	Special Puller for Case Tractors	16.49	9.89 35
C-649-A	Special Collet for C-649	4.58	2.75 35
C-650	Special Puller Ring for Case	4.58	2.75 35
C-652	Special Pulley Plate for Case	2.92	1.75 35
CA-21	Case Service Board (only)		6.00 35
CC-8	1/4" Cold Chisel	.92	.55 82
CC-10	5/16" Cold Chisel	.92	.55 82
CC-12	3/8" Cold Chisel	1.00	.60 82
CC-16	1/2" Cold Chisel	1.17	.70 82
CC-20	5/8" Cold Chisel	1.33	.80 82
CC-24	3/4" Cold Chisel	1.58	.95 82
CC-25	Set 6 Cold Chisels	6.92	4.15 82
CC-25L	CC-25 in Leatherette Kit	8.17	4.90 82
CL-16	Sp. Cletrac Puller Set (tools only)	149.13	89.48 30
CL-24	Cletrac Service Board (only)		6.60 36
CL-643	Special Adaptor for Cletrac	6.00	3.60 36
CL-644	Special Adaptor for Cletrac	5.00	3.00 36
CL-645	Special Cletrac Puller	30.40	18.24 36
CL-645-A	Special Jaws for CL-645	15.00	9.00 36
CL-665	Cletrac Puller Set (tools only)	276.11	165.67 36
CP-8	1/4" Center Punch	.75	.45 83
CP-10	5/16" Center Punch	.83	.50 83
CP-12	3/8" Center Punch	.92	.55 83
CP-16	1/2" Center Punch	1.00	.60 83
CP-20	5/8" Center Punch	1.17	.70 83

Tool No.	Description	List Dealer's		
		Price	Net	Page
CP-24	3/4" Center Punch.....	1.33	.80	83
CP-25	Set 6 Center Punches.....	6.00	3.60	83
CP-25L	CP-25 Set in Leatherette Kit...	7.00	4.20	83
CS-3	Set 3 Coupling Wrenches.....	7.58	4.55	60
CS-3L	CS-3 Set in Leatherette Kit....	8.25	4.95	60
CS-1214	3/8" x 1/16" Coupling Wrench....	2.08	1.25	60
CS-1618	1/2" x 9/16" Coupling Wrench....	2.50	1.50	60
CS-2022	5/8" x 11/16" Coupling Wrench....	3.00	1.80	60
CT-11	Sp. Caterpillar Set (tools only)...	56.33	33.80	30
CT-21	Caterpillar Service Board (only)		6.60	34
CT-641	Caterpillar Tr. Set (tools only)...	183.31	109.99	34
D-114	1/16" Hexagon Socket 1/2" Drive..	1.00	.60	69
D-116	1/2" Hexagon Socket 1/2" Drive..	1.00	.60	69
D-118	5/16" Hexagon Socket 1/2" Drive..	1.00	.60	69
D-120	5/8" Hexagon Socket 1/2" Drive..	1.00	.60	69
D-122	11/16" Hexagon Socket 1/2" Drive..	1.08	.65	69
D-124	3/4" Hexagon Socket 1/2" Drive..	1.17	.70	69
D-214	1/16" Hexagon Socket 3/8" Drive..	.92	.55	75
D-216	1/2" Hexagon Socket 3/8" Drive..	.92	.55	75
D-218	5/16" Hexagon Socket 3/8" Drive..	.92	.55	75
D-220	5/8" Hexagon Socket 3/8" Drive..	.92	.55	75
D-222	11/16" Hexagon Socket 3/8" Drive..	1.00	.60	75
D-224	3/4" Hexagon Socket 3/8" Drive..	1.08	.65	75
DA-10	10" Adjustable Wrench.....	3.67	2.20	73
DA-12	12" Adjustable Wrench.....	5.17	3.10	73
DP-16	1/2" Diamond Point Chisel.....	1.42	.85	82
E-1012	5/16" x 3/8" Open End Wrench....	.92	.55	62
E-1214	3/8" x 1/16" Open End Wrench....	1.08	.65	62
E-1416	1/16" x 1/2" Open End Wrench....	1.17	.70	62
E-1618	1/2" x 9/16" Open End Wrench....	1.25	.75	62
E-1619	1/2" x 11/16" Open End Wrench....	1.25	.75	62
E-1820	5/16" x 5/8" Open End Wrench....	1.50	.90	62
E-2022	5/8" x 11/16" Open End Wrench....	1.58	.95	62
E-2024	11/16" x 3/4" Open End Wrench....	1.83	1.10	62
E-2225	11/16" x 25/32" Open End Wrench....	2.00	1.20	62
E-2426	3/4" x 13/16" Open End Wrench....	2.17	1.30	62
E-2428	3/4" x 1 1/8" Open End Wrench....	2.17	1.30	62
E-3032	15/16" x 1" Open End Wrench....	3.17	1.90	62
E-3436	1 1/16" x 1 1/8" Open End Wrench...	3.83	2.30	62
ED-1000	LeTourneau Striking Wrench...	14.16	8.50	31
ED-1000-1	LeTourneau Pusher Plate.....	12.92	7.75	31
ED-1002-1	LeTourneau Adaptor.....	7.50	4.50	31
ED-1003-1	LeTourneau 1/2 Moon Adap. (pr.)	6.25	3.75	31
ED-1003-2	LeTourneau Bearing Adaptor...	7.50	4.50	31
ED-1003-3	LeTourneau Adaptor Shank....	7.00	4.20	31
ED-1003-4	LeTourneau Connector.....	4.00	2.40	31
ED-1004-2	LeTourneau Bearing Adaptor...	7.09	4.25	31
ED-1005-1	LeTourneau Bearing Plate.....	11.25	6.75	31
ED-1005-2	LeTourneau Reducing Adaptor..	5.41	3.25	31
ED-1006-1	LeTourneau Bearing Plate.....	13.00	7.80	31
ED-1007-1	LeTourneau Adaptor Straps (pr.)	4.34	2.60	31
ED-1007-2	LeTour. Bolts & Sleeves (2 pr.)	7.43	4.45	31
ED-1009-1	LeTourneau Bearing Plate.....	7.50	4.50	31
ED-1010-1	LeTourneau Bearing Plate.....	9.58	5.75	31
ED-1010-2	LeTourneau Bearing Plate.....	9.58	5.75	31
EO-32 to EO-220	Engineers Wrenches.. Prices on App. 54-55			
ES-5	Open End Wrench Set.....	9.25	5.55	62
ES-5L	ES-5 Set in Leatherette Kit....	10.25	6.15	62
ES-6	Open End Wrench Set.....	11.26	6.75	62
ES-6L	ES-6 Set in Leatherette Kit....	12.92	7.75	62
ES-7	Open End Wrench Set.....	12.75	7.65	62
ES-7L	ES-7 Set in Leatherette Kit....	14.42	8.65	62
ES-8	Open End Wrench Set.....	16.34	9.80	62
ES-8L	ES-8 Set in Leatherette Kit....	18.00	10.80	62
F-25	Set 5 Flex Wrenches.....	19.50	11.70	60
F-25L	F-25 Set in Leatherette Kit....	21.00	12.60	60
F-186	1/2" Drive Socket Set.....	32.07	19.25	71
F-187	1/2" Drive Socket Set.....	31.06	18.65	72
F-189	1/2" Drive Socket Set.....	48.23	28.95	72
F-190	Metal Case 5 1/2" x 16" x 2".....	3.25	1.95	72
F-192	Metal Case 19" x 4 3/4" x 2 1/4"...	4.17	2.50	71
F-1214	3/4" x 1/16" Flex Wrench.....	3.17	1.90	60
F-1618	1/2" x 9/16" Flex Wrench.....	3.50	2.10	60
F-1820	5/16" x 5/8" Flex Wrench.....	3.83	2.30	60
F-2022	5/8" x 11/16" Flex Wrench.....	4.25	2.55	60
F-2224	11/16" x 3/4" Flex Wrench.....	4.42	2.65	60
F-2628	15/16" x 1 1/4" Flex Wrench.....	4.58	2.75	60
F-3032	15/16" x 1" Flex Wrench.....	5.42	3.25	60
FC-10	5/16" Mechanics Chisel.....	1.00	.60	82
FC-12	3/8" Mechanics Chisel.....	1.17	.70	82
FC-16	1/2" Mechanics Chisel.....	1.42	.85	82
FC-20	5/8" Mechanics Chisel.....	1.58	.95	82
FC-24	3/4" Mechanics Chisel.....	1.92	1.15	82
FC-25	Set 5 Chisels.....	7.09	4.25	82

Tool No.	Description	List Dealer's		
		Price	Net	Page
FC-25L	FC-25 Set in Leatherette Kit...	8.33	5.00	82
FF-12	12" Flat File.....	1.67	1.00	52
FM-8	8" Mill File.....	.83	.50	68
FR-10	10" Round File.....	.83	.50	52
FS-12	12" Square File.....	1.67	1.00	52
FT-8	Flat Tip for PT-8 Hammer....	.75	.45	79
FT-16	Flat Tip for PT-16 Hammer....	.92	.55	79
FT-490-3	Bottom Sleeve Puller Adaptor...	4.66	2.80	48
FT-490-4	Upper Sleeve Puller Adaptor....	4.66	2.80	48
H-99	Metal Box, 14 1/2" x 4 1/4" x 2"...	2.92	1.75	77
H-160	1/2" Drive Flex Ratchet.....	8.25	4.95	70
H-161	1/2" Drive Standard Ratchet....	7.08	4.25	70
H-162	1/2" Drive Ratchet Plug (only)...	.92	.55	70
H-165	No. 2 Phillips Attach. 1/2" Drive	2.00	1.20	69
H-166	No. 3 Phillips Attach. 1/2" Drive	2.00	1.20	69
H-167	No. 4 Phillips Attach. 1/2" Drive	2.00	1.20	69
H-170	1 1/2" Extension 1/2" Drive.....	1.08	.65	70
H-171	3" Extension 1/2" Drive.....	1.25	.75	70
H-172	6" Extension 1/2" Drive.....	1.58	.95	70
H-173	10" Extension 1/2" Drive.....	2.00	1.20	70
H-174	18" Extension 1/2" Drive.....	2.50	1.50	70
H-176	15" Flex Handle 1/2" Drive.....	4.58	2.75	70
H-177	18" Flex Handle 1/2" Drive.....	5.00	3.00	70
H-181	15" Sliding Tee Handle 1/2" Drive	2.67	1.60	70
H-183	15" Speed Handle 1/2" Drive....	2.92	1.75	70
H-184	18" Speed Handle 1/2" Drive....	3.25	1.95	70
H-185	16" Flex Speed Handle 1/2" Drive	4.58	2.75	69
H-187	10" Sliding Tee Handle 1/2" Drive	2.25	1.35	70
H-189	Universal Joint 1/2" Drive.....	3.08	1.85	69
H-190	Metal Case 18 1/2" x 6 1/2" x 2"...	4.17	2.50	71
H-260	Flex Ratchet 3/8" Drive.....	6.41	3.85	76
H-261	Junior Ratchet 3/8" Drive.....	5.41	3.25	76
H-270	1 1/2" Extension 3/8" Drive.....	1.08	.65	76
H-271	3" Extension 3/8" Drive.....	1.25	.75	76
H-272	6" Extension 3/8" Drive.....	1.50	.90	76
H-273	10" Extension 3/8" Drive.....	1.58	.95	76
H-274	18" Extension 3/8" Drive.....	2.75	1.65	76
H-275	Junior Flex Handle 3/8" Drive...	3.25	1.95	76
H-282	18" Speed Handle 3/8" Drive....	2.75	1.65	76
H-283	15" Speed Handle 3/8" Drive....	2.50	1.50	76
H-287	Junior Sliding Tee 3/8" Drive....	1.83	1.10	76
H-289	Junior Universal Joint 3/8" Drive	3.08	1.85	76
H-290	Metal Box 19" x 5" x 1 1/2".....	2.75	1.65	77
H-361	Heavy Duty Ratchet 3/4" Drive	14.16	8.50	64
H-371	4 1/2" Extension 3/4" Drive.....	2.58	1.55	64
H-373	10" Extension 3/4" Drive.....	3.33	2.00	64
H-374	18" Extension 3/4" Drive.....	4.58	2.75	64
H-377	20" Flex Handle 3/4" Drive.....	8.73	5.24	64
H-387	Sliding Tee Handle 3/4" Drive...	5.00	3.00	64
H-391	Metal Case 26" x 5 1/2" x 3".....	5.83	3.50	67
H-396	Metal Case 24 1/2" x 9" x 3 1/2"...	8.25	4.95	67
H-397	Metal Case 21 1/2" x 5 1/2" x 2 1/2"	5.41	3.25	67
HC-6	Tractor Sleeve Puller Set.....	42.49	25.50	41
HC-10	Truck Sleeve Puller Set.....	52.82	31.69	41
HC-12	Truck & Tractor Sleeve Puller Set	58.82	35.29	41
HC-628	International Pump Hub Puller..	2.75	1.65	42
HC-686	International Ring Compressor..	9.92	5.95	85
HD-381	Heavy Duty Socket Set 3/4" Dr...	82.55	49.55	67
HD-382	Heavy Duty Socket Set 3/4" Dr...	92.63	55.40	66
HD-383	Heavy Duty Socket Set 3/4" Dr...	36.06	21.65	67
HD-385	Heavy Duty Socket Set 3/4" Dr...	128.64	77.20	67
HD-388	Heavy Duty Socket Set 3/4" Dr...	126.00	75.45	66
HP-7	Hollow Punch Set.....	8.25	4.95	90
IHC-21	Sp. Int'l Truck Set (tools only)	161.52	96.91	..
IHC-36	Int'l Truck Service Board (only)		7.50	42
IHC-37	Int'l Truck Serv. Set (tools only)	304.07	182.44	42
JD-10	Honing Stone.....	.58	.35	51
JD-11	John Deere Service Board (only)		5.00	37
JD-12	J-D Special Puller Set (tools only)	45.00	27.00	30
JD-16	J-D Service Set (tools only)...	171.98	103.19	37
JD-18	Governor Shaft Set.....	35.73	21.45	38
JD-19	Governor Shaft Set.....	14.99	9.00	38
JD-20	Governor Shaft Pulling Unit....	5.83	3.50	38
JD-20-1	Governor Shaft Pulling Collet...	3.33	2.00	38
JD-20-1C	Governor Shaft Pulling Collet...	3.83	2.30	38
JD-20-4	Governor Shaft Pulling Ring....	1.67	1.00	38
JD-20-10	Governor Shaft Pulling Collet...	3.33	2.00	38
JD-20-12	Governor Shaft Pulling Adaptor	1.50	.90	38
JD-20-13	McCor.-Deering Pulling Collet..	3.33	2.00	41
JD-21	Governor Shaft Pulling Unit....	15.82	9.50	38
JD-22	Governor Shaft Pulling Unit....	5.83	3.50	38
JD-23	Governor Shaft Pulling Unit....	5.83	3.50	38
JD-25-8	Governor Shaft Aligning Collar..	.75	.45	38

Tool No.	Description	List Dealer's		
		Price	Net	Page
JD-25-9	Governor Shaft Spacing Collar.	.75	.45	38
JD-30	McCor.-Deering Pilot Bear. Puller	9.16	5.50	41
JD-35	Governor Shaft Pulling Collar...	1.50	.90	38
JD-36	Governor Shaft Pulling Collar...	.75	.45	38
JD-40	Governor Shaft Pulling Set.....	50.72	30.45	38
JD-120	Magneto Socket $\frac{5}{8}$ ".....	1.08	.65	51
JD-122	Magneto Socket $\frac{11}{16}$ ".....	1.17	.70	51
JD-124	Magneto Socket $\frac{3}{4}$ ".....	1.33	.80	51
JD-622	Camshaft Bearing Collet.....	5.50	3.30	39
JD-623	Countershaft Bearing Collet....	6.41	3.85	39
JD-631	Countershaft Lock Nut Wrench	10.92	6.55	38
JD-869	Ring Compressor.....	6.41	3.85	39
JD-869-C	Ring Comp. Band $3\frac{1}{16}$ " to $3\frac{3}{8}$ "	.58	.35	39
JD-869-D	Ring Comp. Band $4\frac{1}{4}$ " to $4\frac{9}{16}$ "	.67	.40	39
JD-869-E	Ring Comp. Band $5\frac{1}{2}$ " to $5\frac{3}{4}$ "	.75	.45	39
JD-869-F	Ring Comp. Band 6" to $6\frac{1}{4}$ "	.83	.50	39
JD-869-G	Ring Comp. Band $6\frac{1}{2}$ " to $6\frac{3}{4}$ "	.92	.55	39
JE-42	Jobber Display Easel.....		4.50	15
L-5	Spark Plug Set.....	10.50	6.30	68
L-5B	Spark Plug Set in Metal Case...	12.33	7.40	68
L-6	Set 6 Extra Length Sockets....	10.34	6.20	68
L-116	$\frac{1}{2}$ " Ex. Lgth. Socket $\frac{1}{2}$ " Drive.	1.58	.95	68
L-118	$\frac{9}{16}$ " Ex. Lgth. Socket $\frac{1}{2}$ " Drive.	1.58	.95	68
L-120	$\frac{5}{8}$ " Ex. Lgth. Socket $\frac{1}{2}$ " Drive.	1.67	1.00	68
L-122	$\frac{11}{16}$ " Ex. Lgth. Socket $\frac{1}{2}$ " Drive.	1.67	1.00	68
L-124	$\frac{3}{4}$ " Ex. Lgth. Socket $\frac{1}{2}$ " Drive.	1.67	1.00	68
L-125	$2\frac{5}{8}$ " Ex. Lgth. Socket $\frac{1}{2}$ " Drive.	1.75	1.05	68
L-126	$\frac{13}{16}$ " Spark Plug Socket $\frac{1}{2}$ " Drive	1.83	1.10	68
L-128	$\frac{7}{8}$ " Spark Plug Socket $\frac{1}{2}$ " Drive	1.92	1.15	68
L-130	$\frac{15}{16}$ " Spark Plug Socket $\frac{1}{2}$ " Drive	2.08	1.25	68
L-132	1" Spark Plug Socket $\frac{1}{2}$ " Drive.	2.17	1.30	68
L-134	$\frac{11}{16}$ " Ex. Lgth. Socket $\frac{1}{2}$ " Drive	2.17	1.30	68
L-136	$\frac{1}{8}$ " Spark Plug Socket $\frac{1}{2}$ " Drive	2.50	1.50	68
L-212	$\frac{3}{8}$ " Deep Socket $\frac{3}{8}$ " Drive.....	1.08	.65	75
L-214	$\frac{7}{16}$ " Deep Socket $\frac{3}{8}$ " Drive.....	1.08	.65	75
L-216	$\frac{1}{2}$ " Deep Socket $\frac{3}{8}$ " Drive.....	1.17	.70	75
L-218	$\frac{9}{16}$ " Deep Socket $\frac{3}{8}$ " Drive.....	1.25	.75	75
L-220	$\frac{5}{8}$ " Deep Socket $\frac{3}{8}$ " Drive.....	1.33	.80	75
L-222	$\frac{11}{16}$ " Deep Socket $\frac{3}{8}$ " Drive.....	1.42	.85	75
L-224	$\frac{3}{4}$ " Deep Socket $\frac{3}{8}$ " Drive.....	1.50	.90	75
LTC-38	LeTourneau Ser. Set (tools only)	435.80	261.48	31
M-28	Tubular Handle 24".....	4.17	2.50	58
M-32	Tubular Handle 30".....	5.83	3.50	58
M-36	Tubular Handle 36".....	7.75	4.65	58
MA-28	$\frac{7}{8}$ "-15° Heavy Duty Box Wrench	3.50	2.10	58
MA-30	$\frac{15}{16}$ "-15° H. D. Box Wrench.....	3.67	2.20	58
MA-32	1"-15° H. D. Box Wrench.....	3.67	2.20	58
MA-34	$\frac{11}{16}$ "-15° H. D. Box Wrench....	3.83	2.30	58
MA-36	$\frac{13}{16}$ "-15° H. D. Box Wrench....	3.92	2.35	58
MA-40	$\frac{1}{4}$ "-15° H. D. Box Wrench.....	3.92	2.35	58
MA-42	$\frac{15}{16}$ "-15° H. D. Box Wrench....	5.00	3.00	58
MA-44	$\frac{1}{8}$ "-15° H. D. Box Wrench....	5.92	3.55	58
MA-46	$\frac{1}{16}$ "-15° H. D. Box Wrench....	5.92	3.55	58
MA-48	$\frac{1}{2}$ "-15° H. D. Box Wrench....	6.83	4.10	58
MA-52	$\frac{15}{8}$ "-15° H. D. Box Wrench....	7.50	4.50	58
MA-54	$\frac{11}{16}$ "-15° H. D. Box Wrench....	7.58	4.55	58
MA-56	$\frac{13}{16}$ "-15° H. D. Box Wrench....	7.84	4.70	58
MA-58	$\frac{15}{16}$ "-15° H. D. Box Wrench....	7.91	4.75	58
MA-60	1"-15° H. D. Box Wrench....	9.58	5.75	58
MA-64	2"-15° H. D. Box Wrench.....	9.58	5.75	58
MA-70	$2\frac{3}{16}$ "-15° H. D. Box Wrench...	10.83	6.50	58
MA-72	$2\frac{1}{4}$ "-15° H. D. Box Wrench....	11.67	7.00	58
MD	McCor.-Deering Ser. Board (only)		6.60	40
MD-7	Set Threaded Adaptors.....	7.42	4.45	40
†MD-21	Sp. McCor.-Deer. Set (tools only)	72.90	43.74	
MD-27	Sp. McCor.-Deer. Set (tools only)	88.47	53.08	30
MD-35	M-D Puller Set (tools only)....	215.47	129.28	40
MD-955	Pilot Bearing Puller $\frac{1}{2}$ " to $1\frac{1}{2}$ "	9.17	5.50	12
MD-956	Pilot Bearing Puller $\frac{7}{8}$ " to 2"	10.25	6.15	12
MM-10	M-M Sp. Puller Set (tools only)	41.40	24.84	30
MM-17	M-M Service Board (only).....		5.00	45
MM-18	M-M Puller Set (tools only)....	168.38	101.03	45
MM-98	Special M-M Flywheel Wrench...	11.25	6.75	45
MO-28	$\frac{7}{8}$ " Dbl. Offset Box Wrench....	3.67	2.20	58
MO-30	$\frac{15}{16}$ " Dbl. Offset Box Wrench....	3.83	2.30	58
MO-32	1" Dble. Offset Box Wrench....	3.83	2.30	58
MO-34	$\frac{11}{16}$ " Dbl. Offset Box Wrench....	4.08	2.45	58
MO-36	$\frac{1}{8}$ " Dbl. Offset Box Wrench....	4.17	2.50	58
MO-40	$\frac{1}{4}$ " Dbl. Offset Box Wrench....	4.33	2.60	58
MO-42	$\frac{15}{16}$ " Dbl. Offset Box Wrench....	5.83	3.50	58
MO-44	$\frac{1}{8}$ " Dbl. Offset Box Wrench....	6.91	4.15	58
MO-46	$\frac{1}{16}$ " Dbl. Offset Box Wrench....	6.91	4.15	58
MO-48	$\frac{1}{2}$ " Dbl. Offset Box Wrench....	7.50	4.50	58

Tool No.	Description	List Dealer's		
		Price	Net	Page
MO-52	$1\frac{5}{8}$ " Dbl. Offset Box Wrench...	8.66	5.20	58
MO-54	$1\frac{1}{2}$ " Dbl. Offset Box Wrench...	9.00	5.40	58
MO-56	$1\frac{3}{4}$ " Dbl. Offset Box Wrench...	9.08	5.45	58
MO-58	$1\frac{13}{16}$ " Dbl. Offset Box Wrench...	9.50	5.70	58
MO-60	$1\frac{7}{8}$ " Dbl. Offset Box Wrench...	10.83	6.50	58
MO-64	2" Dble. Offset Box Wrench....	10.83	6.50	58
MO-70	$2\frac{3}{16}$ " Dbl. Offset Box Wrench...	12.08	7.25	58
MO-72	$2\frac{1}{4}$ " Dbl. Offset Box Wrench...	13.00	7.80	58
MP-2	$\frac{1}{16}$ " Magneto Pin Punch.....	.67	.40	83
MP-3	$\frac{3}{32}$ " Magneto Pin Punch.....	.67	.40	83
MP-4	$\frac{1}{8}$ " Magneto Pin Punch.....	.67	.40	83
MP-5	$\frac{1}{8}$ " Magneto Starter Punch....	.67	.40	83
MP-26	Magneto Punch Set.....	2.67	1.60	83
MPC-25	Midget Punch & Chisel Set....	8.26	4.95	83
MPC-25L	MPC-25 Set in Leatherette Kit.	9.50	5.70	83
MS-28	$\frac{7}{8}$ " Straight Box Wrench.....	3.33	2.00	58
MS-30	$1\frac{1}{2}$ " Straight Box Wrench.....	3.50	2.10	58
MS-32	1" Straight Box Wrench.....	3.50	2.10	58
MS-34	$1\frac{1}{16}$ " Straight Box Wrench.....	3.67	2.20	58
MS-36	$1\frac{1}{8}$ " Straight Box Wrench.....	3.67	2.20	58
MS-40	$1\frac{1}{4}$ " Straight Box Wrench.....	3.92	2.35	58
MS-42	$1\frac{5}{16}$ " Straight Box Wrench.....	4.50	2.70	58
MS-44	$1\frac{3}{8}$ " Straight Box Wrench.....	5.83	3.50	58
MS-46	$\frac{1}{16}$ " Straight Box Wrench.....	5.83	3.50	58
MS-48	$1\frac{1}{2}$ " Straight Box Wrench.....	6.58	3.95	58
MS-52	$1\frac{5}{8}$ " Straight Box Wrench.....	7.33	4.40	58
MS-54	$1\frac{11}{16}$ " Straight Box Wrench....	7.50	4.50	58
MS-56	$1\frac{3}{4}$ " Straight Box Wrench.....	7.58	4.55	58
MS-58	$1\frac{13}{16}$ " Straight Box Wrench....	7.75	4.65	58
MS-60	$1\frac{7}{8}$ " Straight Box Wrench.....	9.33	5.60	58
MS-64	2" Straight Box Wrench.....	9.33	5.60	58
MS-70	$2\frac{3}{16}$ " Straight Box Wrench.....	10.42	6.25	58
MS-72	$2\frac{1}{4}$ " Straight Box Wrench.....	11.33	6.80	58
MS-76	$2\frac{3}{8}$ " Straight Box Wrench.....	17.08	10.25	58
MS-82	$2\frac{9}{16}$ " Straight Box Wrench.....	18.59	11.15	58
MS-88	$2\frac{3}{4}$ " Straight Box Wrench.....	19.58	11.75	58
MS-94	$2\frac{15}{16}$ " Straight Box Wrench....	21.50	12.90	58
MS-100	$3\frac{1}{8}$ " Straight Box Wrench.....	22.59	13.55	58
MT-1	Magneto Bearing Install. Tool..	1.00	.60	51
MT-2	Magneto Impulse Spring Tool..	3.50	2.10	51
MT-4	Magneto Impulse Coupling Wr..	1.08	.65	51
MT-8	Magneto Imp. Coupling Puller..	9.58	5.75	51
MT-9	Magneto Outer Race Driver....	.75	.45	51
MT-14	Magneto Impulse Spring Tool..	1.33	.80	51
MT-15	Magneto Impulse Spring Tool..	1.33	.80	51
MT-17	Mag. Removal & Install. Tool..	.75	.45	51
MT-18	Mag. Removal & Install. Tool..	.75	.45	51
MT-19	Magneto Outer Race Puller....	9.08	5.45	51
MT-20	Magneto Impulse Lug Wrench..	2.58	1.55	51
MT-21	Magneto Tee Handle.....	.58	.35	51
MT-22	Mag. Gear Puller & Install. Tool	1.25	.75	51
MT-24	Mag. Fibre Gear Removal Tool..	1.83	1.10	51
MT-26	Magneto Tee Wrench $\frac{9}{16}$ ".....	1.50	.90	51
MT-27	Magneto Tee Wrench $\frac{3}{8}$ ".....	1.75	1.05	51
MT-31	Magneto Set Complete.....	78.97	47.38	51
MT-50	Mag. Impulse Coupling Puller..	2.42	1.45	41
MT-60	Magneto Snap Ring Plier.....	2.75	1.65	88
MT-61	Magneto Snap Ring Pick.....	.50	.30	88
MT-64	Magneto Plier & Pick Set.....	3.25	1.95	88
MT-90	Magneto Box $9\frac{1}{2}$ " x $14\frac{3}{4}$ " x 2"	3.83	2.30	51
†MTS-92	Master Tractor Set.....	415.93	249.55	
O-3	Oliver Clutch Spring Comp. Plate	1.42	.85	44
O-7	Set of 4 Tappet Wrenches.....	7.50	4.50	63
O-7L	O-7 Set in Leatherette Kit.....	8.50	5.10	63
O-9	Set of 6 Tappet Wrenches.....	11.50	6.90	63
O-9L	O-9 Set in Leatherette Kit.....	13.17	7.90	63
O-10	Set of 8 Tappet Wrenches.....	15.84	9.50	63
O-10L	O-10 Set in Leatherette Kit....	17.51	10.50	63
*O-12	$\frac{3}{8}$ " Extra Lgth. Tappet Wrench	1.92	1.15	63
*O-14	$\frac{7}{16}$ " Extra Lgth. Tappet Wrench	1.92	1.15	63
*O-16	$\frac{1}{2}$ " Extra Lgth. Tappet Wrench	1.92	1.15	63
*O-18	$\frac{5}{16}$ " Extra Lgth. Tappet Wrench	1.92	1.15	63
*O-20	$\frac{9}{16}$ " Extra Lgth. Tappet Wrench	2.00	1.20	63
*O-22	$1\frac{1}{16}$ " Extra Lgth. Tappet Wrench	2.00	1.20	63
O-636	Oliver Centering Nipple.....	.92	.55	44
O-637	Oliver Bull Pinion Bearing Adap.	4.17	2.50	44
O-638	Oliver Pump Impeller Adaptor..	5.50	3.30	44
O-639	Oliver Sliding Gear Spacer.....	2.17	1.30	44
O-1416	$\frac{1}{16}$ " x $\frac{1}{2}$ " Tappet Wrench.....	1.83	1.10	63
O-1618	$\frac{1}{2}$ " x $\frac{5}{16}$ " Tappet Wrench.....	1.92	1.15	63

†See Bulletin MD-46 (Revised) Page 3

†See Page 15 Bulletin T-45

*Not available for 6 months

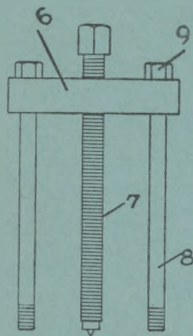
Tool No.	Description	List Dealer's		
		Price	Net	Page
O-2022	$\frac{5}{8}$ " x $1\frac{1}{16}$ " Tappet Wrench.....	2.00	1.20	63
O-2428	$\frac{3}{4}$ " x $\frac{1}{8}$ " Tappet Wrench.....	2.17	1.30	63
OR-7	Oliver Bushing Driver Set.....	8.82	5.29	44
OR-9	Oliver Adaptor.....	1.67	1.00	44
OR-12	Oliver Sp. Puller Set (tools only).....	63.93	38.35	30
OR-14	Oliver Service Board (only).....		6.00	30
OR-17	Oliver Tr. Puller Set (tools only).....	190.91	114.55	30
P-61	Reversible Push-Puller Ratchet.....	14.16	8.50	65
P-61-6	Ratchet Adap. $1\frac{1}{2}$ " hex. x $\frac{3}{4}$ " sq.	3.08	1.65	65
P-61-10	Ratchet Adap. $1\frac{1}{2}$ " hex. x $1\frac{1}{4}$ " sq.	3.08	1.65	65
PA-9	Metal Case $22\frac{1}{2}$ " x $12\frac{1}{2}$ " x $2\frac{1}{2}$ "....	7.50	4.50	17
PA-15	Automotive Service Board (only).....		5.40	17
PA-16	Auto. Puller Set (tools only).....	117.64	70.58	17
PA-16B	Auto. Puller Set in Metal Case.....	125.13	75.08	17
PA-19	Auto. Service Set (tools only).....	145.79	87.47	16
PA-19B	PA-19 Service Board (only).....		6.00	16
PA-19R	PA-19 Set in PA-9 Met. Case.....	153.28	91.97	16
PB-18	18" Jimmy Bar.....	2.50	1.50	82
PB-24	24" Jimmy Bar.....	2.92	1.75	82
PB-30	30" Jimmy Bar.....	3.75	2.25	82
PB-43	15" Pry Bar.....	3.08	1.65	82
PB-45	18" Pry Bar.....	3.92	2.35	82
PC-25	Punch & Chisel Set.....	13.93	8.35	83
PC-25L	PC-25 Set in Leatherette Kit.....	15.75	9.45	83
PD-13	Diesel Service Board (only).....		6.70	29
PD-14	Diesel Service Set (tools only).....	249.27	149.56	29
PE-8	Basic Puller Set (tools only).....	126.98	76.19	30
PE-8C	Metal Case (only) $27\frac{1}{2}$ " x $11\frac{3}{4}$ " x $2\frac{1}{2}$ "....	8.25	4.95	30
PE-8S	PE-8 Set in Metal Case.....	135.23	81.14	30
PE-11	Service Board (only) for PE-12 Set.....		6.00	24
PE-12	General Service Set (tools only).....	171.87	103.12	24
PE-13	Service Board (only) for PE-17.....		6.00	26
PE-14	Service Board (only) for PE-18.....		6.00	27
PE-15	Industrial Ser. Set (tools only).....	177.05	106.23	25
PE-16	Service Board (only) for PE-15.....		6.00	25
PE-17	Industrial Ser. Set (tools only).....	249.76	149.85	26
PE-18	Industrial Ser. Set (tools only).....	279.74	167.85	27
PE-20	Industrial Ser. Set (tools only).....	331.18	198.71	28
PE-21	Ser. Board (only) for PE-20 Set.....		7.25	28
PP-6	$\frac{3}{16}$ " Pin Punch.....	1.58	.95	83
PP-8	$\frac{1}{4}$ " Pin Punch.....	1.58	.95	83
PP-10	$\frac{1}{2}$ " Pin Punch.....	1.58	.95	83
PP-25	Set 3 Pin Punches.....	4.74	2.85	83
PP-25L	PP-25 Set in Leatherette Kit.....	5.50	3.30	83
PR-10	Ser. Board (only) for PR-11 Set.....		5.25	19
PR-11	Refrig. Ser. Set (tools only).....	112.71	67.63	19
PR-19	Service Bd. (only) for PR-20 Set.....		6.00	18
PR-20	Refrig. Service Set (tools only).....	216.78	130.07	18
PT-8	6 Oz. Pyralin Tip Hammer.....	2.67	1.60	79
PT-16	12 Oz. Pyralin Tip Hammer.....	3.17	1.90	79
PW-10	10" Pipe Wrench.....	3.17	1.90	73
RE-9507	MM Flywheel Pulling Bars (pr.).....	5.83	3.50	45
RE-9508	MM Flywheel Wrench.....	4.17	2.50	45
RN-16	$\frac{1}{2}$ " Round Nose Chisel.....	1.58	.95	83
RT-8	Rounded Tip for PT-8 Hammer.....	.72	.45	79
RT-16	Rounded Tip for PT-16 Hammer.....	.92	.55	79
S-114	$\frac{1}{16}$ " 8 Point Socket $\frac{1}{2}$ " Drive.....	1.08	.65	69
S-116	$\frac{1}{8}$ " 8 Point Socket $\frac{1}{2}$ " Drive.....	1.08	.65	69
S-118	$\frac{3}{16}$ " 8 Point Socket $\frac{1}{2}$ " Drive.....	1.08	.65	69
S-120	$\frac{1}{4}$ " 8 Point Socket $\frac{1}{2}$ " Drive.....	1.17	.70	69
S-122	$\frac{1}{2}$ " 8 Point Socket $\frac{1}{2}$ " Drive.....	1.25	.75	69
S-124	$\frac{3}{4}$ " 8 Point Socket $\frac{1}{2}$ " Drive.....	1.25	.75	69
S-126	$1\frac{1}{8}$ " 8 Point Socket $\frac{1}{2}$ " Drive.....	1.42	.85	69
S-128	$1\frac{1}{4}$ " 8 Point Socket $\frac{1}{2}$ " Drive.....	1.42	.85	69
S-132	1" 8 Point Socket $\frac{1}{2}$ " Drive.....	1.67	1.00	69
S-134	$1\frac{1}{16}$ " 8 Point Socket $\frac{1}{2}$ " Drive.....	1.83	1.10	69
S-212	$\frac{3}{8}$ " 8 Point Socket $\frac{3}{8}$ " Drive.....	1.17	.70	75
S-214	$\frac{1}{2}$ " 8 Point Socket $\frac{3}{8}$ " Drive.....	1.17	.70	75
S-216	$\frac{3}{4}$ " 8 Point Socket $\frac{3}{8}$ " Drive.....	1.17	.70	75
SD-76	$2\frac{3}{8}$ " Hexagon Box Wrench.....	11.90	7.14	58
SF-180	Socket Set $\frac{1}{2}$ " Drive.....	47.07	28.25	71
SF-181	Socket Set $\frac{1}{2}$ " Drive.....	32.31	19.40	71
SF-230	Socket Set $\frac{3}{8}$ " Drive.....	32.44	19.45	77
SF-235	Socket Set $\frac{3}{8}$ " Drive.....	12.77	7.65	78
SF-240	Socket Set $\frac{3}{8}$ " Drive.....	24.67	14.80	78
SF-280	Socket Set $\frac{3}{8}$ " Drive.....	30.75	18.45	77
SP-6	$\frac{3}{16}$ " Starter Punch.....	1.25	.75	83
SP-8	$\frac{1}{4}$ " Starter Punch.....	1.25	.75	83
SP-10	$\frac{5}{16}$ " Starter Punch.....	1.25	.75	83
SWH-64	Box End Sledging Wrenches.....	Prices on App.		56
SWH-292	" " " " " ".....			56
SWO-64	Open End Sledging Wrenches.....	Prices on App.		57
to SWO-292	" " " " " ".....			57

Tool No.	Description	List Dealer's		
		Price	Net	Page
T-625	Master Service Set.....	182.39	109.43	52
T-630	Standard Service Set.....	123.69	74.21	52
T-806	Bushing Driver Collar.....	.83	.50	84
T-807	Bushing Driver Collar.....	.83	.50	84
T-808	Bushing Driver Collar.....	.92	.55	84
T-809	Bushing Driver Collar.....	.92	.55	84
T-810	Bushing Driver Collar.....	.92	.55	84
T-811	Bushing Driver Collar.....	1.00	.60	84
T-812	Special Oliver Bushing Collar.....	1.00	.60	84
T-818	Bushing Driver Set in Metal Case.....	9.00	5.40	84
TC-7	Thread Chaser Set, 7 Dies in Case.....	16.42	9.85	86
TC-10	Thread Chaser Handle (only).....	1.50	.90	86
TC-20	$\frac{5}{8}$ " Unit Chaser Die.....	2.25	1.35	86
TC-24	$\frac{3}{4}$ " Unit Chaser Die.....	2.25	1.35	86
TC-28	$\frac{1}{2}$ " Unit Chaser Die.....	2.25	1.35	86
TC-32	1" Unit Chaser Die.....	2.25	1.35	86
TC-36	$1\frac{1}{8}$ " Unit Chaser Die.....	2.25	1.35	86
TC-40	$1\frac{1}{4}$ " Unit Chaser Die.....	2.25	1.35	86
TD-5	Set 5 Track Bolt Sockets.....	11.25	6.75	50
TD-320	$\frac{5}{8}$ " Track Bolt Socket $\frac{3}{4}$ " Dr.....	1.83	1.10	50
TD-324	$\frac{3}{4}$ " Track Bolt Socket $\frac{3}{4}$ " Dr.....	1.83	1.10	50
TD-328	$\frac{1}{2}$ " Track Bolt Socket $\frac{3}{4}$ " Dr.....	2.17	1.30	50
TD-330	$1\frac{1}{8}$ " Track Bolt Socket $\frac{3}{4}$ " Dr.....	2.50	1.50	50
TD-336	$1\frac{1}{4}$ " Track Bolt Socket $\frac{3}{4}$ " Dr.....	2.92	1.75	50
TP-8	$\frac{1}{4}$ " Taper Punch.....	.92	.55	83
TP-10	$\frac{5}{16}$ " Taper Punch.....	.92	.55	83
TP-12	$\frac{3}{8}$ " Taper Punch.....	.92	.55	83
TP-16	$\frac{1}{2}$ " Taper Punch.....	1.17	.70	83
TP-20	$\frac{5}{8}$ " Taper Punch.....	1.42	.85	83
TP-24	$\frac{3}{4}$ " Taper Punch.....	1.67	1.00	83
TP-25	Set 6 Taper Punches.....	7.02	4.20	83
TP-25L	TP-25 Set in Leatherette Kit.....	8.67	5.20	83
U-118	$\frac{9}{16}$ " Universal Socket $\frac{1}{2}$ " Drive.....	3.17	1.90	69
U-120	$\frac{5}{8}$ " Universal Socket $\frac{1}{2}$ " Drive.....	3.17	1.90	69
U-122	$1\frac{1}{16}$ " Universal Socket $\frac{1}{2}$ " Drive.....	3.33	2.00	69
U-212	$\frac{3}{8}$ " Universal Socket $\frac{3}{8}$ " Drive.....	3.08	1.85	75
U-214	$\frac{1}{2}$ " Universal Socket $\frac{3}{8}$ " Drive.....	3.08	1.85	75
U-216	$\frac{1}{4}$ " Universal Socket $\frac{3}{8}$ " Drive.....	3.08	1.85	75
U-218	$\frac{9}{16}$ " Universal Socket $\frac{3}{8}$ " Drive.....	3.08	1.85	75
U-220	$\frac{5}{8}$ " Universal Socket $\frac{3}{8}$ " Drive.....	3.08	1.85	75
U-222	$1\frac{1}{16}$ " Universal Socket $\frac{3}{8}$ " Drive.....	3.25	1.95	75
U-224	$\frac{3}{4}$ " Universal Socket $\frac{3}{8}$ " Drive.....	3.25	1.95	75
W-2	$\frac{5}{16}$ " Set Screw Wrench.....	.17	.10	90
W-3	$\frac{3}{8}$ " Set Screw Wrench.....	.17	.10	90
W-4	$\frac{1}{2}$ " Set Screw Wrench.....	.17	.10	90
W-5	$\frac{5}{16}$ " Set Screw Wrench.....	.17	.10	90
W-6	$\frac{3}{8}$ " Set Screw Wrench.....	.25	.15	90
W-7	$\frac{1}{2}$ " Set Screw Wrench.....	.25	.15	90
W-8	$\frac{1}{4}$ " Set Screw Wrench.....	.33	.20	90
W-10	$\frac{5}{16}$ " Set Screw Wrench.....	.42	.25	90
W-12	$\frac{3}{8}$ " Set Screw Wrench.....	.50	.30	90
W-13	Set 9 Set Screw Wrenches.....	2.42	1.45	90
XC-10	$\frac{5}{16}$ " Cape Chisel.....	1.08	.65	82
XC-16	$\frac{1}{2}$ " Cape Chisel.....	1.58	.95	82

NOTICE—With the first post-war issue of the OTC catalogue it has been necessary to increase prices on some items on which our production and material costs have advanced. Only a small percentage of the items in the OTC line have been increased in price and every effort has been made to keep these increases at a minimum. This is the first price increase OTC has instituted since 1941 when prices were frozen by the Government . . . Steadily advancing costs may make additional price increases necessary, but it is our intention to keep our prices stable so far as it is possible to do so.

OWATONNA TOOL COMPANY
OWATONNA, MINNESOTA

PARTS PRICE LIST

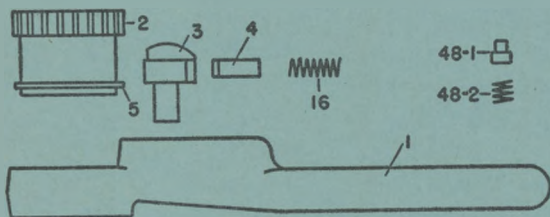
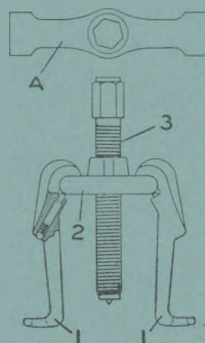


TOOL No. 491 PAGE 48

Tool No.	Description	List Price, Ea.
491-6	Cross Bar.....	\$4.80
491-7	Forcing Screw.....	6.50
491-8	Leg.....	1.75
491-9	Nut $\frac{5}{8}$ "-18 Hex.....	.30

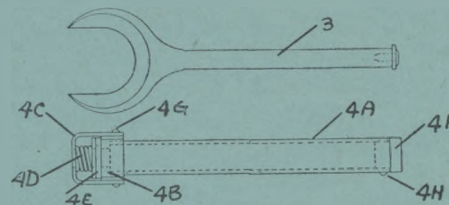
TOOL No. 827-B PAGE 14

Tool No.	Description	List Price, Ea.
827-1	Puller Leg.....	4.50
827-2	Center Hub.....	5.50
827-3	Forcing Screw.....	5.00
827-A	Striking Wrench....	2.08



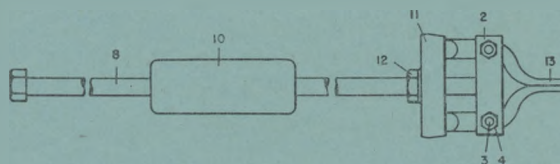
TOOL NO. P-61 PAGE 65

Part No.	Description	List Price Ea.
P61-1	Tool Body.....	\$6.75
P61-2	Ratchet Hub.....	4.75
P61-3	Reversing Lever.....	1.50
P61-4	Pin.....	.75
P61-5	Snap Ring.....	.25
P61-16	Spring.....	.25
P61-48-1	Plug.....	.15
P61-48-2	Spring.....	.10



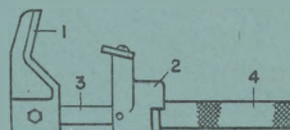
TOOL No. 1201 PAGE 14

Part No.	Description	List Price, Ea.
1201-3	Yoke Support.....	\$3.00
1201-4A	Support Tube.....	1.10
1201-4B	Tube Cap.....	.75
1201-4C	Spring Retainer .....	.85
1201-4D	Coil Spring.....	.40
1201-4E	Cam Lock .....	.70
1201-4F	Foot Plate.....	.50
1201-4G	Drive Screw.....	.05
1201-4H	Drive Screw .....	.05



TOOL NO. 954 PAGE 13

Part No.	Description	List Price Ea.
955-2	Cross Block.....	\$2.25
955-3-4	Cap Screw and Nut.....	.15
955-11	Adjusting Bar.....	1.50
955-13	Forged Jaw.....	2.00
954-8	Shank.....	2.75
954-10	Hammer.....	2.50
954-12	Adjusting Nut.....	.20



TOOL NO. 897 PAGE 86

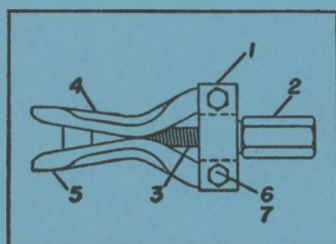
Part No.	Description	List Price Ea.
897-1	V-shaped Brass Pad.....	\$3.75
897-2	Die Post.....	3.00
897-3	Threaded Shank.....	2.00
897-4	Knurled Handle.....	2.25

PARTS PRICE LIST

TOOL NO. 450

PAGE 87

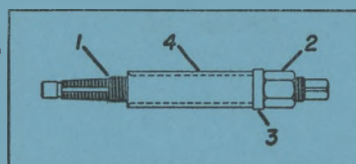
Part No.	Description	List Price Ea.
450-A	Tube with Cap 13 $\frac{3}{4}$ "	\$ 2.65
450-B	Tube with Plug 12"	2.25
450-C	Tube with Plug 6"	2.10
450-D	Screw	3.60
450-E	Wrench Handle	4.55
450-F	Wrench Hub	2.75
450-G	Thrust Bearing	2.30
450-P	Foot Extension	2.75



TOOL NO. 455
PAGE 88

Part No.	Description	List Price Ea.
455-1	Slotted Block	\$2.00
455-2	Forcing Nut	.95
455-3	Forcing Screw	1.45
455-4	Upper Jaw with narrow slot	1.65
455-5	Lower Jaw with wide slot	1.65
455-6-7	Cap Screw and Nut	.20

TOOL NO. 644 PAGE 39



Part No.	Description	List Price Ea.
644-1	Pulling Screw	\$3.25
644-2	Pulling Nut	.50
644-3	Washer	.15
644-4	Barrel	2.00

TOOL NO. 679

PAGE 7

Part No.	Description	List Price Ea.
679-1	Block	\$2.50
679-2	Bolt	1.35
679-3	Nut	.20

SEE ILLUSTRATION UPPER RIGHT CORNER

TOOL NO. 680

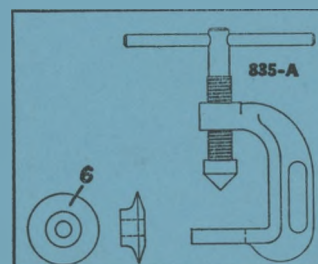
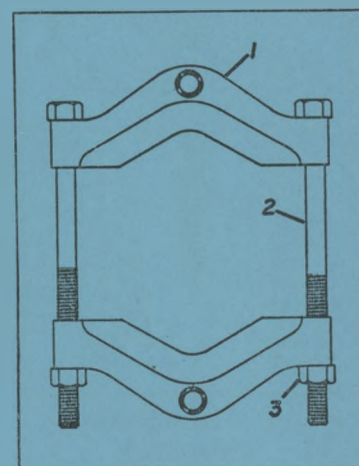
PAGE 7

Part No.	Description	List Price Ea.
680-1	Block	\$11.00
680-2	Bolt	3.00
680-3	Nut	.30

SEE ILLUSTRATION UPPER RIGHT CORNER

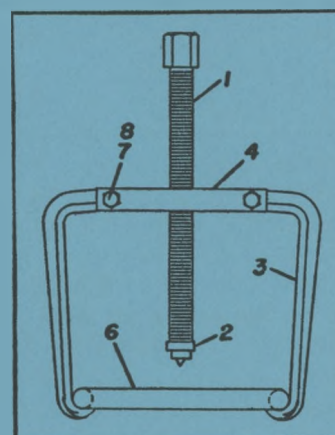
TOOL NOS. 679 and 680

For Part Number, Description and Price, See Bottom of the Column at Left.



TOOL NO. 835
PAGE 84

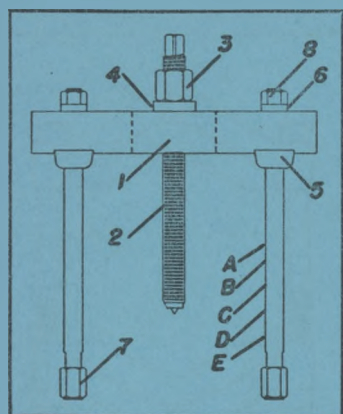
Part No.	Description	List Price Ea.
835-A	Flaring Clamp	\$1.83
835-6	Cutter Wheel	.34



TOOL NO. 853
PAGE 84

Part No.	Description	List Price Ea.
853-1	Forcing Screw	\$2.05
853-2	Screw Nipple	.35
853-3	Puller Arm	1.65
853-4	Center Hub	3.95
853-5	Large Ring	1.65
853-6	Small Ring	1.50
853-7-8	Cap Screw and Nut	.20

PARTS PRICE LIST



TOOL NO. 927
PAGE 8

Part No.	Description	List Price Ea.
927-1	Cross Block	\$7.65
927-2	Forcing Screw	5.85
927-3	Forcing Nut	1.30
927-4	Thrust Washer	.50
927-5	Sliding Plate	1.00
927-6	Leg Washer	.30
927-7	Leg End	1.00
927-8	Leg Nut	.30
927-A	6 $\frac{3}{4}$ " Leg (pair)	4.17
927-B	15 $\frac{3}{4}$ " Leg (pair)	4.58

TOOL NO. 938-P PAGE 8

Same Illustration As For Tool Number 927 Above

Part No.	Description	List Price Ea.
938P-1	Cross Block	\$17.50
938P-2	Forcing Screw	10.90
938P-3	Forcing Nut	3.00
938P-4	Thrust Washer	1.00
938P-5	Sliding Plate	2.00
938P-6	Leg Washer	.60
938P-7	Leg End	2.00
938P-8	Leg Nut	.40
938P-A	8" Leg (pair)	7.50
938P-B	18" Leg (pair)	12.50
938P-C	28" Leg (pair)	22.50

TOOL NO. 939 PAGE 8

Same Illustration As For Tool Number 927 Above

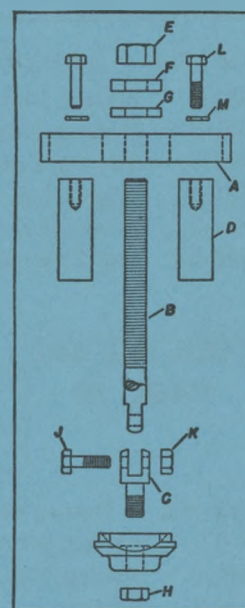
Part No.	Description	List Price Ea.
939-1	Cross Block	\$23.50
939-2	Forcing Screw	15.50
939-3	Forcing Nut	4.50
939-4	Thrust Washer	1.85
939-5	Sliding Plate	2.75
939-6	Leg Washer	.83
939-7	Leg End	2.50
939-8	Leg Nut	.60
939-A	8" Leg (pair)	11.67
939-B	18" Leg (pair)	17.34
939-C	28" Leg (pair)	23.34

TOOL NO. 930-938

PAGE 8

Same Illustration As For Tool Number 927 at Left
Parts 930-2 to 930-8 and 930-B to 930-E are interchangeable on 930 and 938 Push-Pullers.

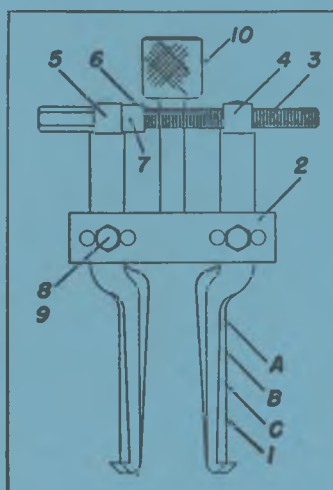
Part No.	Description	List Price Ea.
930-1	Cross Block 10 $\frac{1}{2}$ "	\$10.50
938-1	Cross Block 13 $\frac{1}{2}$ "	12.35
930-2	Forcing Screw	8.30
930-3	Forcing Nut	1.83
930-4	Thrust Washer	.50
930-5	Sliding Plate	1.00
930-6	Leg Washer	.30
930-7	Leg End	1.00
930-8	Leg Nut	.30
930-B	16 $\frac{1}{2}$ " Leg (pair)	7.17
930-C	22 $\frac{1}{2}$ " Leg (pair)	9.17
930-D	9 $\frac{1}{2}$ " Leg (pair)	5.34
930-E	4 $\frac{1}{2}$ " Leg (pair)	4.58



TOOL NO. 970
PAGE 46

Part No.	Description	List Price Ea.
970-A	Three-Way Head	\$8.50
970-B	Forcing Screw	6.85
970-C	Swivel	2.50
970-D	Riser Blocks	2.00
970-E	1" SAE Hex Nut	1.50
970-F	Thrust Bearing	1.50
970-G	Thrust Washer	.90
970-H	$\frac{3}{4}$ " SAE Hex Nut	.30
970-J	Cap Screw $\frac{1}{2}$ "-20	.50
970-K	$\frac{1}{2}$ " SAE Hex Nut	.10
970-L	Cap Screw $\frac{1}{2}$ "-13	.40
970-M	Wrought Washer	.10

PARTS PRICE LIST



TOOL NO. 943
PAGE 9

Part No.	Description	List Price Ea.
943-2	Slotted Block.....	\$5.46
943-3	Adjusting Screw.....	2.92
943-4	Tapped Swivel.....	1.00
943-5	Plain Swivel.....	.65
943-6	Collar.....	.40
943-7	Drive Screw.....	.05
943-8-9	Cap Screw and Nut.....	.40
943-10	Reducing Adaptor.....	2.08
943-A1	5½" Clearance Jaw.....	4.55
943-B1	4" Clearance Jaw.....	4.55
943-C1	2¼" Clearance Jaw.....	2.92

TOOL NO. 943-D PAGE 9

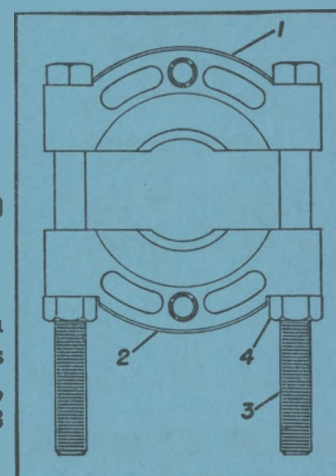
Same Illustration As For Tool Number 943 Above

Part No.	Description	List Price Ea.
943D-1	Puller Jaw.....	\$7.50
943D-2	Slotted Block.....	8.00
943D-3	Adjusting Screw.....	4.90
943D-4	Tapped Swivel.....	1.50
943D-5	Plain Swivel.....	.90
943D-6	Collar.....	.40
943D-7	Drive Screw.....	.10
943D-8-9	Cap Screw and Nut.....	.25
943D-10	Adaptor.....	4.00

TOOL NO. 947 PAGE 9

Same Illustration As For Tool Number 943 Above

Part No.	Description	List Price Ea.
947-1	Puller Jaw.....	\$11.00
947-2	Slotted Block.....	12.00
947-3	Adjusting Screw.....	6.00
947-4	Tapped Swivel.....	1.50
947-5	Plain Swivel.....	1.00
947-6	Collar.....	.50
947-7	Drive Screw.....	.10
947-8-9	Cap Screw and Nut.....	.30
947-10	Adaptor.....	4.50



TOOL NO. 950
PAGE 7

This Illustration
and Page Location
Also Apply to Tools
951, 952, 952-A,
952-D, and 953
Listed Below.

Part No.	Description	List Price Ea.
950-1	Block (Top).....	\$2.60
950-2	Block (Bottom).....	2.60
950-3	Bolt.....	.80
950-4	Nut.....	.30

TOOL NO. 951 PAGE 7

Part No.	Description	List Price Ea.
951-1	Block (Top).....	\$6.00
951-2	Block (Bottom).....	6.00
951-3	Bolt.....	2.85
951-4	Nut.....	.25

TOOL NO. 952 PAGE 7

Part No.	Description	List Price Ea.
952-1	Block (Top).....	\$8.20
952-2	Block (Bottom).....	8.20
952-3	Bolt.....	3.10
952-4	Nut.....	.30

TOOL NO. 952-A PAGE 7

Part No.	Description	List Price Ea.
952A-1	Block (Top).....	\$8.20
952A-2	Block (Bottom).....	8.20
952A-3	Bolt.....	3.60
952A-4	Nut.....	.30

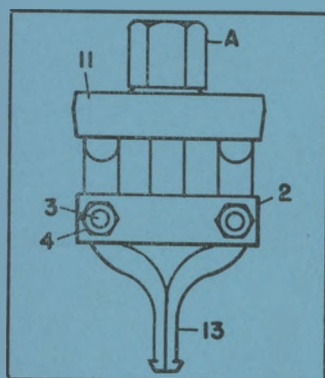
TOOL NO. 952-D PAGE 7

Part No.	Description	List Price Ea.
952D-1	Block (Top).....	\$11.50
952D-2	Block (Bottom).....	11.50
952D-3	Bolt.....	6.10
952D-4	Nut.....	.60

TOOL NO. 953 PAGE 7

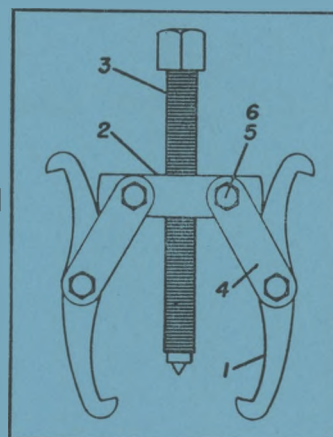
Part No.	Description	List Price Ea.
953-1	Block (Top).....	\$21.00
953-2	Block (Bottom).....	21.00
953-3	Bolt.....	7.74
953-4	Nut.....	.80

PARTS PRICE LIST



**TOOL NO. 955
and 956
PAGE 12**

**TOOL NO. 1001
PAGE 4**



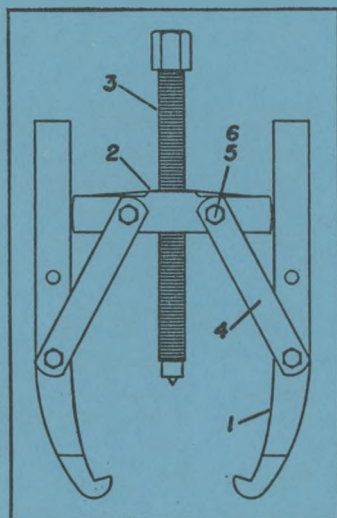
TOOL NO. 955 and 956

PAGE 00

Part No.	Description	List Price Ea.
955-2	Cross Block.....	\$2.25
955-3-4	Cap Screw and Nut.....	.15
955-11	Adjusting Bar.....	1.50
955-13	Forged Jaw 1/2" to 1 1/2".....	2.00
955-A	Adaptor.....	1.00
956-A-13	Jaw 1/8" to 2".....	1.85

Part No.	Description	List Price Ea.
1001-1	Reversible Arm.....	\$2.10
1001-2	Forged Head.....	2.75
1001-3	Forcing Screw.....	2.00
1001-4	Strap.....	.20
1001-5-6	Cap Screw and Nut.....	.28

**TOOL NO. 1003
PAGE 4**



**THIS ILLUSTRATION AND
PAGE LOCATION ALSO
APPLY TO TOOL NUMBERS
1003 1/2, 1004, 1005 AND
1006 IN THIS SECTION.**

TOOL NO. 1003 1/2

PAGE 4

Part No.	Description	List Price Ea.
1003 1/2-1	Single-end Arm.....	\$10.50
1003 1/2-2	Forged Head.....	12.00
1003 1/2-3	Forcing Screw.....	9.60
1003 1/2-4	Strap.....	1.00
1003 1/2-5-6	Cap Screw and Nut.....	.60

TOOL NO. 1004

PAGE 4

Part No.	Description	List Price Ea.
1004-1	Single-end Arm.....	\$14.50
1004-2	Forged Head.....	15.80
1004-3	Forcing Screw.....	13.65
1004-4	Strap.....	1.25
1004-5-6	Cap Screw and Nut.....	.70

TOOL NO. 1005

PAGE 4

Part No.	Description	List Price Ea.
1005-1	Puller Arm.....	\$20.25
1005-2	Forged Head.....	23.10
1005-3	Forcing Screw.....	17.25
1005-4	Strap.....	1.50
1005-5-6	Cap Screw and Nut.....	.80

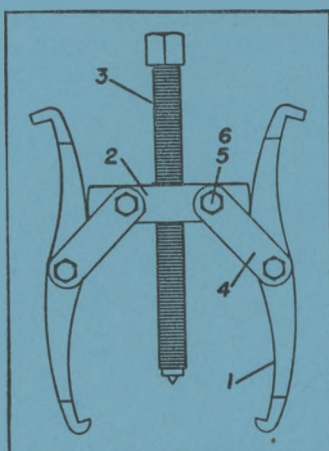
TOOL NO. 1006

PAGE 4

Part No.	Description	List Price Ea.
1006-1	Puller Arm.....	\$34.50
1006-2	Forged Head.....	38.50
1006-3	Forcing Screw.....	33.75
1006-4	Strap.....	1.60
1006-5-6	Cap Screw and Nut.....	.80

Part No.	Description	List Price Ea.
1003-1	Arm, Single End.....	\$5.90
1003-2	Forged Head.....	8.19
1003-3	Forcing Screw.....	7.75
1003-4	Strap.....	.65
1003-5-6	Cap Screw and Nut.....	.48

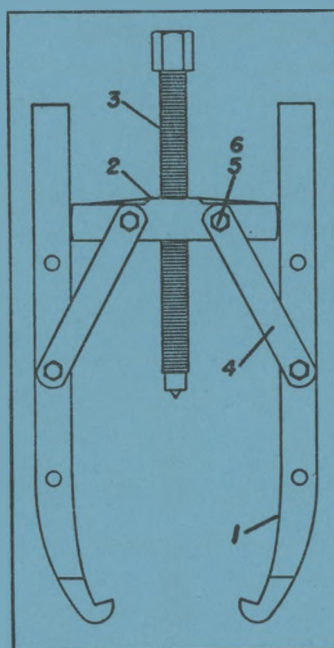
PARTS PRICE LIST



TOOL NUMBER 1002

PAGE 4

Part No.	Description	List Price Ea.
1002-1	Reversible Arm.....	\$4.10
1002-2	Forged Head.....	6.00
1002-3	Forcing Screw.....	4.10
1002-4	Strap.....	.45
1002-5-6	Cap Screw and Nut.....	.40



This Illustration and Page Number Also Applies to Tools Number 1002-L, 1003-L, 1003½-L, 1004-L, 1005-L, 1006-L, Listed In This Section.

TOOL NO. 1003-L

PAGE 4

Part No.	Description	List Price Ea.
1003L-1	Single-end Arm.....	\$ 7.80
1003-2	Forged Head.....	8.19
1003-3	Forcing Screw.....	7.75
1003-4	Strap.....	.65
1003-5-6	Cap Screw and Nut.....	.48

TOOL NO. 1003½-L

PAGE 4

Part No.	Description	List Price Ea.
1003½L-1	Single-end Arm.....	\$14.88
1003½-2	Forged Head.....	12.00
1003½-3	Forcing Screw.....	9.60
1003½-4	Strap.....	1.00
1003½-5-6	Cap Screw and Nut.....	.60

TOOL NO. 1004-L

PAGE 4

Part No.	Description	List Price Ea.
1004L-1	Puller Arm.....	\$19.08
1004-2	Forged Head.....	15.80
1004-3	Forcing Screw.....	13.65
1004-4	Strap.....	1.25
1004-5-6	Cap Screw and Nut.....	.70

TOOL NO. 1001-L

PAGE 4

Part No.	Description	List Price Ea.
1001L-1	Single-end Arm.....	\$2.75
1001-2	Forged Head.....	2.75
1001-3	Forcing Screw.....	2.00
1001-4	Strap.....	.20
1001-5-6	Cap Screw and Nut.....	.28

TOOL NO. 1002-L

PAGE 4

Part No.	Description	List Price Ea.
1002L-1	Arm, Single end.....	\$5.60
1002-2	Forged Head.....	6.00
1002-3	Forcing Screw.....	4.10
1002-4	Strap.....	.45
1002-5-6	Cap Screw and Nut.....	.40

TOOL NO. 1005-L

PAGE 4

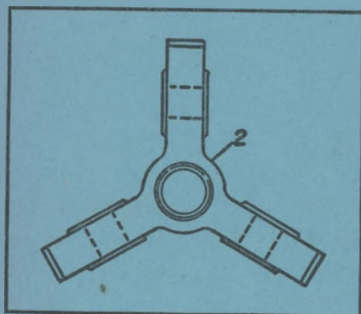
Part No.	Description	List Price Ea.
1005L-1	Puller Arm.....	\$27.32
1005-2	Forged Head.....	23.10
1005-3	Forcing Screw.....	17.25
1005-4	Strap.....	1.50
1005-5-6	Cap Screw and Nut.....	.80

TOOL NO. 1006-L

PAGE 4

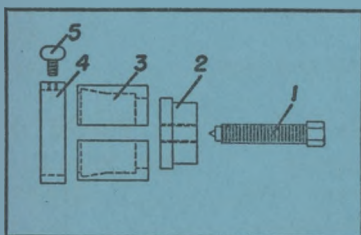
Part No.	Description	List Price Ea.
1006L-1	Puller Arm.....	\$42.21
1006-2	Forged Head.....	38.50
1006-3	Forcing Screw.....	33.75
1006-4	Strap.....	1.60
1006-5-6	Cap Screw and Nut.....	.80

PARTS PRICE LIST



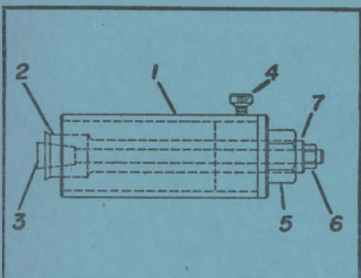
**ALL
THREE-ARM
PULLERS
PAGE 5**

Part No.	Description	List Price Ea.
1011-2	Three-way Head.....	\$ 3.50
1012-2	Three-way Head.....	6.90
1013-2	Three-way Head.....	10.70
1013½-2	Three-way Head.....	15.00
1014-2	Three-way Head.....	18.80
1015-2	Three-way Head.....	25.50
1016-2	Three-way Head.....	46.50



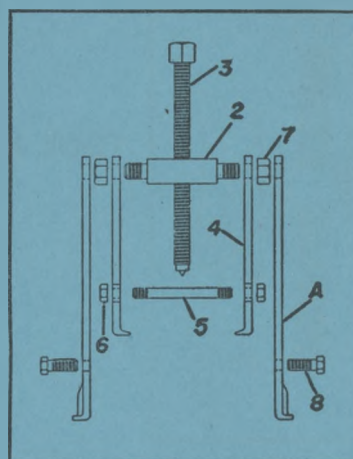
**TOOL NO.
C-649
PAGE 35**

Part No.	Description	List Price Ea.
C-649-1	Screw.....	\$3.50
C-649-2	Hub.....	3.75
C-649-3	Split Collet.....	6.50
C-649-4	Band.....	2.50
C-649-5	Thumb Nut.....	.40



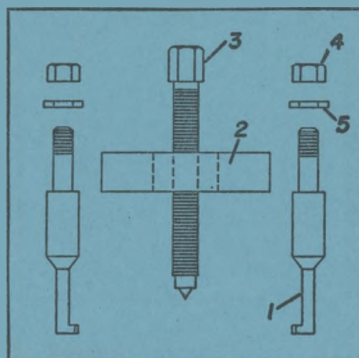
**TOOL NO.
MT-19
PAGE 51**

Part No.	Description	List Price Ea.
MT-19-1	Barrel.....	\$2.00
MT-19-2	Expanding Mandrel.....	4.50
MT-19-3	Expander Bolt.....	2.50
MT-19-4	Thumb Nut.....	.50
MT-19-5	Hex Nut.....	.35
MT-19-6	Hex Nut.....	.15
MT-19-7	Washer.....	.20



TOOL NO. CL-645 PAGE 36

Part No.	Description	List Price Ea.
CL-645-A	Long Arm (Pair)	\$15.00
CL-645-2	Cross Block.....	5.90
CL-645-3	Forcing Screw.....	7.00
CL-645-4	Short Arm (Pair).....	13.74
CL-645-5	Cross Bolt.....	.75
CL-645-6	Nut.....	.20
CL-645-7	Nut.....	.30
CL-645-8	Set Screw.....	.60



**TOOL NO.
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Part No.	Description	List Price Ea.
MT-8-1	Puller Arm.....	\$2.60
MT-8-2	Cross Block.....	2.25
MT-8-3	Forcing Screw.....	2.00
MT-8-4	Nut.....	.10
MT-8-5	Washer.....	.15



**OWATONNA TOOL
COMPANY**
OWATONNA, MINNESOTA